



Lys Pro Leu Val Ala Glu Thr Asp Ser Pro His Arg Ala Ala Phe Val
405 410 415

Val Gly Gly Ser Ser Phe Pro Asp Thr Ser Leu Val Leu Glu Thr Lys
420 425 430

Glu Pro Glu Ile Glu Leu Pro Lys Glu Pro Arg Pro Asn Glu Glu Cys
435 440 445

Leu Gln Ile Leu Gly Asn Ala Glu Lys Gly Ala Lys Phe Leu Ser Asp
450 455 460

Ala Glu Ile Ile Gln Leu Val Asn Ala Lys His Ile Pro Ala Tyr Lys
465 470 475 480

Leu Glu Thr Leu Met Glu Thr His Glu Arg Gly Val Ser Ile Arg Arg
485 490 495

Gln Leu Leu Ser Lys Lys Leu Pro Glu Pro Ser Ser Leu Gln Tyr Leu
500 505 510

Pro Tyr Arg Asp Tyr Asn Tyr Ser Leu Val Leu Gly Ala Cys Cys Glu
515 520 525

Asn Val Ile Gly Tyr Met Pro Ile Pro Val Gly Val Val Gly Pro Leu
530 535 540

Cys Leu Asp Gly Lys Glu Phe Gln Val Pro Met Ala Thr Thr Glu Gly
545 550 555 560

Cys Leu Val Ala Ser Thr Asn Arg Gly Cys Arg Ala Ile Cys Leu Gly
565 570 575

Gly Gly Ala Ser Ser Arg Val Leu Ala Asp Gly Met Thr Arg Gly Pro
580 585 590

Val Val Arg Leu Pro Arg Ala Cys Asp Ser Ala Glu Val Lys Ala Trp
595 600 605

Leu Glu Thr Pro Glu Gly Phe Ala Val Ile Lys Glu Ala Phe Asp Ser
610 615 620

Thr Ser Arg Phe Ala Arg Leu Gln Lys Leu His Ile Ser Met Ala Gly
625 630 635 640

Arg Asn Leu Tyr Ile Arg Phe Gln Ser Arg Thr Gly Asp Ala Met Gly
645 650 655

Met Asn Met Ile Ser Lys Gly Thr Glu Lys Ala Leu Ser Lys Leu His
660 665 670

Glu Tyr Phe Pro Glu Met Gln Ile Leu Ala Val Ser Gly Asn Tyr Cys
675 680 685

Thr Asp Lys Lys Pro Ala Ala Val Asn Trp Ile Glu Gly Arg Gly Lys
690 695 700

Thr Val Val Cys Glu Ala Val Ile Pro Ala Lys Val Val Arg Glu Val
705 710 715 720

Leu Lys Thr Thr Thr Glu Ala Met Ile Asp Val Asn Ile Asn Lys Asn
725 730 735

Leu Val Gly Ser Ala Met Ala Gly Ser Ile Gly Gly Tyr Asn Ala His
740 745 750

Ala Ala Asn Tyr Val Thr Ala Ile Tyr Ile Ala Cys Gly Gln Asp Ala
755 760 765

Ala Gln Asn Val Gly Ser Ser Asn Cys Ile Thr Leu Met Glu Ala Ser
770 775 780

Gly Pro Pro Asn Glu Asp Leu Tyr Ile Ser Cys Thr Met Pro Ser Ile
785 790 795 800

Glu Ile Gly Thr Val Gly Gly Gly Thr Asn Leu Leu Pro Gln Gln Ala
805 810 815

Cys Leu Gln Met Leu Gly Val Gln Gly Ala Cys Lys Asp Ser Pro Gly
820 825 830

Glu Asn Ala Arg Gln Leu Ala Arg Ile Val Cys Gly Thr Val Met Ala
835 840 845

Gly Glu Leu Ser Leu Met Ala Ala Leu Ala Ala Gly His Leu Val Lys
850 855 860

Ser His Met Ile His Asn Arg Ser Lys Ile Asn Leu Gln Asp Leu Glu
865 870 875 880

Gly Ala Cys Thr Lys Lys Ala Ala
885

<210> 289
<211> 887
<212> PRT
<213> Rattus norvegicus

<400> 289

Met Leu Ser Arg Leu Phe Arg Met His Gly Leu Phe Val Ala Ser His
1 5 10 15

Pro Trp Glu Val Ile Val Gly Thr Val Thr Leu Thr Ile Cys Met Met
20 25 30

Ser Met Asn Met Phe Thr Gly Asn Asn Lys Ile Cys Gly Trp Asn Tyr
35 40 45

Glu Cys Pro Lys Phe Glu Glu Asp Val Leu Ser Ser Asp Ile Ile Ile
50 55 60

Leu Thr Ile Thr Arg Cys Ile Ala Ile Leu Tyr Ile Tyr Phe Gln Phe
65 70 75 80

Gln Asn Leu Arg Gln Leu Gly Ser Lys Tyr Ile Leu Gly Ile Ala Gly
85 90 95

Leu Phe Thr Ile Phe Ser Ser Phe Val Phe Ser Thr Val Val Ile His
100 105 110

Phe Leu Asp Lys Glu Leu Thr Gly Leu Asn Glu Ala Leu Pro Phe Phe
115 120 125

Leu Leu Leu Ile Asp Leu Ser Arg Ala Ser Ala Leu Ala Lys Phe Ala
130 135 140

Leu Ser Ser Asn Ser Gln Asp Glu Val Arg Glu Asn Ile Ala Arg Gly
145 150 155 160

Met Ala Ile Leu Gly Pro Thr Phe Thr Leu Asp Ala Leu Val Glu Cys
165 170 175

Leu Val Ile Gly Val Gly Thr Met Ser Gly Val Arg Gln Leu Glu Ile
180 185 190

Met Cys Cys Phe Gly Cys Met Ser Val Leu Ala Asn Tyr Phe Val Phe
195 200 205

Met Thr Phe Phe Pro Ala Cys Val Ser Leu Val Leu Glu Leu Ser Arg
210 215 220
Glu Ser Arg Glu Gly Arg Pro Ile Trp Gln Leu Ser His Phe Ala Arg
225 230 235 240
Val Leu Glu Glu Glu Glu Asn Lys Pro Asn Pro Val Thr Gln Arg Val
245 250 255
Lys Met Ile Met Ser Leu Gly Leu Val Leu Val His Ala His Ser Arg
260 265 270
Trp Ile Ala Asp Pro Ser Pro Gln Asn Ser Thr Ala Glu Gln Ser Lys
275 280 285
Val Ser Leu Gly Leu Ala Glu Asp Val Ser Lys Arg Ile Glu Pro Ser
290 295 300
Val Ser Leu Trp Gln Phe Tyr Leu Ser Lys Met Ile Ser Met Asp Ile
305 310 315 320
Glu Gln Val Ile Thr Leu Ser Leu Ala Leu Leu Leu Ala Val Lys Tyr
325 330 335
Ile Phe Phe Glu Gln Ala Glu Thr Glu Ser Thr Leu Ser Leu Lys Asn
340 345 350
Pro Ile Thr Ser Pro Val Val Thr Pro Lys Lys Ala Gln Asp Asn Cys
355 360 365
Cys Arg Arg Glu Pro Leu Leu Val Arg Arg Asn Gln Lys Leu Ser Ser
370 375 380
Val Glu Glu Asp Pro Gly Val Asn Gln Asp Arg Lys Val Glu Val Ile
385 390 395 400
Lys Pro Leu Val Ala Glu Ala Glu Thr Ser Gly Arg Ala Thr Phe Val
405 410 415
Leu Gly Ala Ser Ala Ala Ser Pro Pro Leu Ala Leu Gly Ala Gln Glu
420 425 430
Pro Gly Ile Glu Leu Pro Ser Glu Pro Arg Pro Asn Glu Glu Cys Leu
435 440 445

Gln Ile Leu Glu Ser Ala Glu Lys Gly Ala Lys Phe Leu Ser Asp Ala
 450 455 460

Glu Ile Ile Gln Leu Val Asn Ala Lys His Ile Pro Ala Tyr Lys Leu
 465 470 475 480

Glu Thr Leu Met Glu Thr His Glu Arg Gly Val Ser Ile Arg Arg Gln
 485 490 495

Leu Leu Ser Ala Lys Leu Ala Glu Pro Ser Ser Leu Gln Tyr Leu Pro
 500 505 510

Tyr Arg Asp Tyr Asn Tyr Ser Leu Val Met Gly Ala Cys Cys Glu Asn
 515 520 525

Val Ile Gly Tyr Met Pro Ile Pro Val Gly Val Ala Gly Pro Leu Cys
 530 535 540

Leu Asp Gly Lys Glu Tyr Gln Val Pro Met Ala Thr Thr Glu Gly Cys
 545 550 555 560

Leu Val Ala Ser Thr Asn Arg Gly Cys Arg Ala Ile Ser Leu Gly Gly
 565 570 575

Gly Ala Ser Ser Arg Val Leu Ala Asp Gly Met Ser Arg Gly Pro Val
 580 585 590

Val Arg Leu Pro Arg Ala Cys Asp Ser Ala Glu Val Lys Ser Trp Leu
 595 600 605

Glu Thr Pro Glu Gly Phe Ala Val Val Lys Glu Ala Phe Asp Ser Thr
 610 615 620

Ser Arg Phe Ala Arg Leu Gln Lys Leu His Val Thr Leu Ala Gly Arg
 625 630 635 640

Asn Leu Tyr Ile Arg Leu Gln Ser Lys Thr Gly Asp Ala Met Gly Met
 645 650 655

Asn Met Ile Ser Lys Gly Thr Glu Lys Ala Leu Leu Lys Leu Gln Glu
 660 665 670

Gly Val Pro Glu Leu Gln Ile Leu Ala Val Ser Gly Asn Tyr Cys Thr
 675 680 685

Asp Lys Lys Pro Ala Ala Ile Asn Trp Ile Glu Gly Arg Gly Lys Thr
690 695 700

Val Val Cys Glu Ala Val Ile Pro Ala Lys Val Val Arg Glu Val Leu
705 710 715 720

Lys Thr Thr Thr Glu Ala Met Val Asp Val Asn Ile Asn Lys Asn Leu
725 730 735

Val Gly Ser Ala Met Ala Gly Ser Ile Gly Gly Tyr Asn Leu His Ala
740 745 750

Ala Asn Ile Val Thr Ala Ile Tyr Ile Ala Cys Gly Gln Asp Ala Ala
755 760 765

Gln Asn Val Gly Ser Ser Asn Cys Ile Thr Leu Met Glu Ala Ser Gly
770 775 780

Pro Thr Asn Glu Asp Leu Tyr Ile Ser Cys Thr Met Pro Ser Ile Glu
785 790 795 800

Ile Gly Thr Val Gly Gly Gly Thr Asn Leu Leu Pro Gln Gln Ala Cys
805 810 815

Leu Gln Met Leu Gly Val Gln Gly Ala Cys Lys Asp Asn Pro Gly Glu
820 825 830

Asn Ala Arg Gln Leu Ala Arg Ile Val Cys Gly Thr Val Met Ala Gly
835 840 845

Glu Leu Ser Leu Met Ala Ala Leu Ala Ala Gly His Leu Val Arg Ser
850 855 860

His Met Val His Asn Arg Ser Lys Ile Asn Leu Gln Asp Leu Gln Gly
865 870 875 880

Thr Cys Thr Lys Lys Ala Ala
885

<210> 290
<211> 491
<212> PRT
<213> *Saccharomyces cerevisiae*

<400> 290

Met Lys Leu Ser Thr Lys Leu Cys Trp Cys Gly Ile Lys Gly Arg Leu
1 5 10 15

Arg Pro Gln Lys Gln Gln Gln Leu His Asn Thr Asn Leu Gln Met Thr
 20 25 30

Glu Leu Lys Lys Gln Lys Thr Ala Glu Gln Lys Thr Arg Pro Gln Asn
 35 40 45

Val Gly Ile Lys Gly Ile Gln Ile Tyr Ile Pro Thr Gln Cys Val Asn
 50 55 60

Gln Ser Glu Leu Glu Lys Phe Asp Gly Val Ser Gln Gly Lys Tyr Thr
 65 70 75 80

Ile Gly Leu Gly Gln Thr Asn Met Ser Phe Val Asn Asp Arg Glu Asp
 85 90 95

Ile Tyr Ser Met Ser Leu Thr Val Leu Ser Lys Leu Ile Lys Ser Tyr
 100 105 110

Asn Ile Asp Thr Asn Lys Ile Gly Arg Leu Glu Val Gly Thr Glu Thr
 115 120 125

Leu Ile Asp Lys Ser Lys Ser Val Lys Ser Val Leu Met Gln Leu Phe
 130 135 140

Gly Glu Asn Thr Asp Val Glu Gly Ile Asp Thr Leu Asn Ala Cys Tyr
 145 150 155 160

Gly Gly Thr Asn Ala Leu Phe Asn Ser Leu Asn Trp Ile Glu Ser Asn
 165 170 175

Ala Trp Asp Gly Arg Asp Ala Ile Val Val Cys Gly Asp Ile Ala Ile
 180 185 190

Tyr Asp Lys Gly Ala Ala Arg Pro Thr Gly Gly Ala Gly Thr Val Ala
 195 200 205

Met Trp Ile Gly Pro Asp Ala Pro Ile Val Phe Asp Ser Val Arg Ala
 210 215 220

Ser Tyr Met Glu His Ala Tyr Asp Phe Tyr Lys Pro Asp Phe Thr Ser
 225 230 235 240

Glu Tyr Pro Tyr Val Asp Gly His Phe Ser Leu Thr Cys Tyr Val Lys
 245 250 255

Ala Leu Asp Gln Val Tyr Lys Ser Tyr Ser Lys Lys Ala Ile Ser Lys
260 265 270

Gly Leu Val Ser Asp Pro Ala Gly Ser Asp Ala Leu Asn Val Leu Lys
275 280 285

Tyr Phe Asp Tyr Asn Val Phe His Val Pro Thr Cys Lys Leu Val Thr
290 295 300

Lys Ser Tyr Gly Arg Leu Leu Tyr Asn Asp Phe Arg Ala Asn Pro Gln
305 310 315 320

Leu Phe Pro Glu Val Asp Ala Glu Leu Ala Thr Arg Asp Tyr Asp Glu
325 330 335

Ser Leu Thr Asp Lys Asn Ile Glu Lys Thr Phe Val Asn Val Ala Lys
340 345 350

Pro Phe His Lys Glu Arg Val Ala Gln Ser Leu Ile Val Pro Thr Asn
355 360 365

Thr Gly Asn Met Tyr Thr Ala Ser Val Tyr Ala Ala Phe Ala Ser Leu
370 375 380

Leu Asn Tyr Val Gly Ser Asp Asp Leu Gln Gly Lys Arg Val Gly Leu
385 390 395 400

Phe Ser Tyr Gly Ser Gly Leu Ala Ala Ser Leu Tyr Ser Cys Lys Ile
405 410 415

Val Gly Asp Val Gln His Ile Ile Lys Glu Leu Asp Ile Thr Asn Lys
420 425 430

Leu Ala Lys Arg Ile Thr Glu Thr Pro Lys Asp Tyr Glu Ala Ala Ile
435 440 445

Glu Leu Arg Glu Asn Ala His Leu Lys Lys Asn Phe Lys Pro Gln Gly
450 455 460

Ser Ile Glu His Leu Gln Ser Gly Val Tyr Tyr Leu Thr Asn Ile Asp
465 470 475 480

Asp Lys Phe Arg Arg Ser Tyr Asp Val Lys Lys
485 490

<210> 291
 <211> 447
 <212> PRT
 <213> Schizosaccharomyces pombe

<400> 291

Met Ser Phe Asp Arg Lys Asp Ile Gly Ile Lys Gly Leu Val Leu Tyr
 1 5 10 15

Thr Pro Asn Gln Tyr Val Glu Gln Ala Ala Leu Glu Ala His Asp Gly
 20 25 30

Val Ser Thr Gly Lys Tyr Thr Ile Gly Leu Gly Leu Thr Lys Met Ala
 35 40 45

Phe Val Asp Asp Arg Glu Asp Ile Tyr Ser Phe Gly Leu Thr Ala Leu
 50 55 60

Ser Gln Leu Ile Lys Arg Tyr Gln Ile Asp Ile Ser Lys Ile Gly Arg
 65 70 75 80

Leu Glu Val Gly Thr Glu Thr Ile Ile Asp Lys Ser Lys Ser Val Lys
 85 90 95

Ser Val Leu Met Gln Leu Phe Gly Asp Asn His Asn Val Glu Gly Ile
 100 105 110

Asp Cys Val Asn Ala Cys Tyr Gly Gly Val Asn Ala Leu Phe Asn Thr
 115 120 125

Ile Asp Trp Ile Glu Ser Ser Ala Trp Asp Gly Arg Asp Gly Ile Val
 130 135 140

Val Ala Gly Asp Ile Ala Leu Tyr Ala Lys Gly Asn Ala Arg Pro Thr
 145 150 155 160

Gly Gly Ala Gly Cys Val Ala Leu Leu Val Gly Pro Asn Ala Pro Ile
 165 170 175

Val Phe Glu Pro Gly Leu Arg Gly Thr Tyr Met Gln His Ala Tyr Asp
 180 185 190

Phe Tyr Lys Pro Asp Leu Thr Ser Glu Tyr Pro Tyr Val Asp Gly His
 195 200 205

Phe Ser Leu Glu Cys Tyr Val Lys Ala Leu Asp Gly Ala Tyr Ala Asn
 210 215 220

Tyr Asn Val Arg Asp Val Ala Lys Asn Gly Lys Ser Gln Gly Leu Gly
225 230 235 240

Leu Asp Arg Phe Asp Tyr Cys Ile Phe His Ala Pro Thr Cys Lys Gln
245 250 255

Val Gln Lys Ala Tyr Ala Arg Leu Leu Tyr Thr Asp Ser Ala Ala Glu
260 265 270

Pro Ser Asn Pro Glu Leu Glu Gly Val Arg Glu Leu Leu Ser Thr Leu
275 280 285

Asp Ala Lys Lys Ser Leu Thr Asp Lys Ala Leu Glu Lys Gly Leu Met
290 295 300

Ala Ile Thr Lys Glu Arg Phe Asn Lys Arg Val Ser Pro Ser Val Tyr
305 310 315 320

Ala Pro Thr Asn Cys Gly Asn Met Tyr Thr Ala Ser Ile Phe Ser Cys
325 330 335

Leu Thr Ala Leu Leu Ser Arg Val Pro Ala Asp Glu Leu Lys Gly Lys
340 345 350

Arg Val Gly Ala Tyr Ser Tyr Gly Ser Gly Leu Ala Ala Ser Phe Phe
355 360 365

Ser Phe Val Val Lys Gly Asp Val Ser Glu Ile Ala Lys Lys Thr Asn
370 375 380

Leu Val Asn Asp Leu Asp Asn Arg His Cys Leu Thr Pro Thr Gln Tyr
385 390 395 400

Glu Glu Ala Ile Glu Leu Arg His Gln Ala His Leu Lys Lys Asn Phe
405 410 415

Thr Pro Lys Gly Ser Ile Glu Arg Leu Arg Ser Gly Thr Tyr Tyr Leu
420 425 430

Thr Gly Ile Asp Asp Met Phe Arg Arg Ser Tyr Ser Val Lys Pro
435 440 445

<210> 292

<211> 520

<212> PRT

<213> HUMAN

<400> 292

Met Pro Gly Ser Leu Pro Leu Asn Ala Glu Ala Cys Trp Pro Lys Asp
1 5 10 15

Val Gly Ile Val Ala Leu Glu Ile Tyr Phe Pro Ser Gln Tyr Val Asp
20 25 30

Gln Ala Glu Leu Glu Lys Tyr Asp Gly Val Asp Ala Gly Lys Tyr Thr
35 40 45

Ile Gly Leu Gly Gln Ala Lys Met Gly Phe Cys Thr Asp Arg Glu Asp
50 55 60

Ile Asn Ser Leu Cys Met Thr Val Val Gln Asn Leu Met Glu Arg Asn
65 70 75 80

Asn Leu Ser Tyr Asp Cys Ile Gly Arg Leu Glu Val Gly Thr Glu Thr
85 90 95

Ile Ile Asp Lys Ser Lys Ser Val Lys Thr Asn Leu Met Gln Leu Phe
100 105 110

Glu Glu Ser Gly Asn Thr Asp Ile Glu Gly Ile Asp Thr Thr Asn Ala
115 120 125

Cys Tyr Gly Gly Thr Ala Ala Val Phe Asn Ala Val Asn Trp Ile Glu
130 135 140

Ser Ser Ser Trp Asp Gly Arg Tyr Ala Leu Val Val Ala Gly Asp Ile
145 150 155 160

Ala Val Tyr Ala Thr Gly Asn Ala Arg Pro Thr Gly Gly Val Gly Ala
165 170 175

Val Ala Leu Leu Ile Gly Pro Asn Ala Pro Leu Ile Phe Glu Arg Gly
180 185 190

Leu Arg Gly Thr His Met Gln His Ala Tyr Asp Phe Tyr Lys Pro Asp
195 200 205

Met Leu Ser Glu Tyr Pro Ile Val Asp Gly Lys Leu Ser Ile Gln Cys
210 215 220

Tyr Leu Ser Ala Leu Asp Arg Cys Tyr Ser Val Tyr Cys Lys Lys Ile

225		230		235		240
His Ala Gln Trp	Gln Lys Glu Gly Asn Asp	Lys Asp Phe Thr Leu Asn				
	245		250			255
Asp Phe Gly Phe Met Ile Phe His	Ser Pro Tyr Cys Lys Leu Val Gln					
	260		265			270
Lys Ser Leu Ala Arg Met Leu Leu Asn Asp	Phe Leu Asn Asp Gln Asn					
	275		280			285
Arg Asp Lys Asn Ser Ile Tyr Ser Gly Leu Glu Ala Phe Gly Asp Val						
	290		295			300
Lys Leu Glu Asp Thr Tyr Phe Asp Arg Asp Val Glu Lys Ala Phe Met						
	305		310			315
Lys Ala Ser Ser Glu Leu Phe Ser Gln Lys Thr Lys Ala Ser Leu Leu						
	325		330			335
Val Ser Asn Gln Asn Gly Asn Met Tyr Thr Ser Ser Val Tyr Gly Ser						
	340		345			350
Leu Ala Ser Val Leu Ala Gln Tyr Ser Pro Gln Gln Leu Ala Gly Lys						
	355		360			365
Arg Ile Gly Val Phe Ser Tyr Gly Ser Gly Leu Ala Ala Thr Leu Tyr						
	370		375			380
Ser Leu Lys Val Thr Gln Asp Ala Thr Pro Gly Ser Ala Leu Asp Lys						
	385		390			395
Ile Thr Ala Ser Leu Cys Asp Leu Lys Ser Arg Leu Asp Ser Arg Thr						
	405		410			415
Gly Val Ala Pro Asp Val Phe Ala Glu Asn Met Lys Leu Arg Glu Asp						
	420		425			430
Thr His His Leu Val Asn Tyr Ile Pro Gln Gly Ser Ile Asp Ser Leu						
	435		440			445
Phe Glu Gly Thr Trp Tyr Leu Val Arg Val Asp Glu Lys His Arg Arg						
	450		455			460
Thr Tyr Ala Arg Arg Pro Thr Pro Asn Asp Asp Thr Leu Asp Glu Gly						
	465		470			475
						480

Val Gly Leu Val His Ser Asn Ile Ala Thr Glu His Ile Pro Ser Pro
 485 490 495

Ala Lys Lys Val Pro Arg Leu Pro Ala Thr Ala Ala Glu Pro Glu Ala
 500 505 510

Ala Val Ile Ser Asn Gly Glu His
 515 520

<210> 293
 <211> 163
 <212> PRT
 <213> Dictyostelium discoideum

<400> 293

Arg His Glu Asn Asp Tyr Ala Thr Lys Val Ala Pro Thr Thr Leu Leu
 1 5 10 15

Ala Lys Gln Leu Gly Asn Thr Tyr Cys Gly Ser Thr Tyr Ser Gly Leu
 20 25 30

Leu Ser Leu Leu Asp Glu Lys Ser Asn Asp Leu Val Gly Lys Arg Val
 35 40 45

Leu Thr Phe Ser Tyr Gly Ser Gly Leu Ala Ala Ser Ala Phe Ser Phe
 50 55 60

Lys Val Glu Lys Pro Ile Asn His Ile Val Glu Lys Val Asp Leu Lys
 65 70 75 80

Asn Arg Leu Ala Lys Arg Val Arg Val Glu Pro Glu Ile Phe Thr Glu
 85 90 95

Lys Leu Ser Leu Arg Glu Thr Arg His Asn Leu Lys Asn Tyr Val Pro
 100 105 110

Ser Asp Glu Thr Thr Asn Met Phe Pro Gly Ser Phe Tyr Leu Ser Ser
 115 120 125

Val Asp Lys Ala Gly Ile Arg Lys Phe Asp Arg Thr Tyr Ser Thr Ser
 130 135 140

Ala Val Leu Gly Ala Phe Gln Arg Arg Gln Gln Ile Ser His Gln Gln
 145 150 155 160

Ser Asn Leu

<210> 294
<211> 458
<212> PRT
<213> Caenorhabditis elegans

<400> 294

Gln Leu Ser Tyr Thr Pro Val Thr Asp Val Gly Ile Gly Ala Ile Glu
1 5 10 15

Leu Tyr Phe Pro Gln Asn Phe Val Asp Gln Asn Asp Leu Glu Lys Phe
20 25 30

Asn Asn Val Ser Ser Gly Lys Tyr Thr Ile Gly Leu Gly Gln Gln Gln
35 40 45

Met Gly Phe Cys Ser Asp Asn Glu Asp Ile Val Ser Ile Ser Leu Thr
50 55 60

Val Thr Arg Lys Leu Ile Glu Thr Tyr Lys Ile Ser Thr Asp Ser Ile
65 70 75 80

Gly Cys Leu Val Val Gly Thr Glu Thr Met Ile Asp Lys Ser Lys Ser
85 90 95

Val Lys Thr Ala Leu Met Asp Leu Phe Pro Gly Asn Ser Asp Ile Glu
100 105 110

Gly Val Asp Ile Lys Asn Ala Cys Phe Gly Gly Ala Gln Ala Leu Leu
115 120 125

His Ala Ile Asp Trp Val Thr Val Asn His Pro Leu Asp Lys Lys Asn
130 135 140

Ala Ile Val Val Val Ala Asp Ile Ala Ile Tyr Glu Glu Gly Pro Ala
145 150 155 160

Arg Cys Thr Gly Gly Ala Gly Ala Ile Ala Phe Leu Ile Cys Pro Asp
165 170 175

Ala Ser Ile Pro Ile Asp Arg Gln Phe Ser Ala Cys His Met Lys Asn
180 185 190

Thr Trp Asp Phe Phe Lys Pro Ile Thr Pro Ile Pro Ser Glu Tyr Pro
195 200 205

Val Val Asp Gly Ser Leu Ser Leu Ser Ser Tyr Leu Glu Ala Val Arg
 210 215 220

Met Thr Tyr Thr Tyr Phe Ile Ser Lys Val Asn Arg His Thr Thr Gly
 225 230 235 240

Ile Asp Gly Leu Asn Ser Phe Asp Gly Val Phe Leu His Ser Pro Phe
 245 250 255

Thr Lys Met Val Gln Lys Gly Leu Ala Val Met Asn Tyr Thr Asp Ser
 260 265 270

Gln Leu Arg His Lys Gln Leu Asn Gly Asn Gly Val Asp His Lys Leu
 275 280 285

Asp Glu Asn Asp Arg Ala Gly Leu Ala Lys Met Ile Glu Leu Ser Ala
 290 295 300

Gln Val Trp Lys Glu Lys Thr Asp Pro Tyr Leu Val Phe Asn Arg Arg
 305 310 315 320

Ile Gly Asn Met Tyr Thr Pro Ser Leu Phe Ala Gln Leu Leu Ala Tyr
 325 330 335

Leu Ala Ala Asp Asp Cys Val Thr Gly Glu Lys Ser Ile Leu Phe Phe
 340 345 350

Ala Tyr Gly Ser Gly Leu Ala Ser Ala Ile Phe Pro Gly Arg Val Arg
 355 360 365

Gln Thr Ser Asn Leu Asp Lys Ile Arg Gln Val Ala Ile Arg Ala Ile
 370 375 380

Lys Arg Leu Asp Asp Arg Ile Gln Phe Thr Pro Glu Glu Phe Thr Glu
 385 390 395 400

Thr Leu Gln Lys Arg Glu Val Phe Leu Arg Ser Lys Glu Ile Pro Lys
 405 410 415

Ser Pro Ser Glu Thr Ser Leu Phe Pro Asn Thr Tyr Phe Leu Asp Asn
 420 425 430

Met Asp Lys Leu Tyr Arg Arg Ser Tyr Thr Leu His Glu Glu Pro Asn
 435 440 445

Gly Val Gln Asn Gly Asn Gly Ile His His
450 455

<210> 295
<211> 461
<212> PRT
<213> Arabidopsis thaliana

<400> 295

Met Ala Lys Asn Val Gly Ile Leu Ala Met Asp Ile Tyr Phe Pro Pro
1 5 10 15

Thr Cys Val Gln Gln Glu Ala Leu Glu Ala His Asp Gly Ala Ser Lys
20 25 30

Gly Lys Tyr Thr Ile Gly Leu Gly Gln Asp Cys Leu Ala Phe Cys Thr
35 40 45

Glu Leu Glu Asp Val Ile Ser Met Ser Phe Asn Ala Val Thr Ser Leu
50 55 60

Phe Glu Lys Tyr Lys Ile Asp Pro Asn Gln Ile Gly Arg Leu Glu Val
65 70 75 80

Gly Ser Glu Thr Val Ile Asp Lys Ser Lys Ser Ile Lys Thr Phe Leu
85 90 95

Met Gln Leu Phe Glu Lys Cys Gly Asn Thr Asp Val Glu Gly Val Asp
100 105 110

Ser Thr Asn Ala Cys Tyr Gly Gly Thr Ala Ala Leu Leu Asn Cys Val
115 120 125

Asn Trp Val Glu Ser Asn Ser Trp Asp Gly Arg Tyr Gly Leu Val Ile
130 135 140

Cys Thr Asp Ser Ala Val Tyr Ala Glu Gly Pro Ala Arg Pro Thr Gly
145 150 155 160

Gly Ala Ala Ala Ile Ala Met Leu Ile Gly Pro Asp Ala Pro Ile Val
165 170 175

Phe Glu Ser Lys Leu Arg Ala Ser His Met Ala His Val Tyr Asp Phe
180 185 190

Tyr Lys Pro Asn Leu Ala Ser Glu Tyr Pro Val Val Asp Gly Lys Leu

195		200		205
Ser Gln Thr Cys Tyr Leu Met Ala Leu Asp Ser Cys Tyr Lys His Leu				
210		215		220
Cys Asn Lys Phe Glu Lys Ile Glu Gly Lys Glu Phe Ser Ile Asn Asp				
225		230		235
Ala Asp Tyr Ile Val Phe His Ser Pro Tyr Asn Lys Leu Val Gln Lys				
	245		250	255
Ser Phe Ala Arg Leu Leu Tyr Asn Asp Phe Leu Arg Asn Ala Ser Ser				
	260		265	270
Ile Asp Glu Ala Ala Lys Glu Lys Phe Thr Pro Tyr Ser Ser Leu Thr				
	275		280	285
Leu Asp Glu Ser Tyr Gln Ser Arg Asp Leu Glu Lys Val Ser Gln Gln				
	290		295	300
Ile Ser Lys Pro Phe Tyr Asp Ala Lys Val Gln Pro Thr Thr Leu Ile				
305		310		315
Pro Lys Glu Val Gly Asn Met Tyr Thr Ala Ser Leu Tyr Ala Ala Phe				
	325		330	335
Ala Ser Leu Ile His Asn Lys His Asn Asp Leu Ala Gly Lys Arg Val				
	340		345	350
Val Met Phe Ser Tyr Gly Ser Gly Ser Thr Ala Thr Met Phe Ser Leu				
	355		360	365
Arg Leu Asn Asp Asn Lys Pro Pro Phe Ser Ile Ser Asn Ile Ala Ser				
	370		375	380
Val Met Asp Val Gly Gly Lys Leu Lys Ala Arg His Glu Tyr Ala Pro				
385		390		395
Glu Lys Phe Val Glu Thr Met Lys Leu Met Glu His Arg Tyr Gly Ala				
	405		410	415
Lys Asp Phe Val Thr Thr Lys Glu Gly Ile Ile Asp Leu Leu Ala Pro				
	420		425	430
Gly Thr Tyr Tyr Leu Lys Glu Val Asp Ser Leu Tyr Arg Arg Phe Tyr				
	435		440	445

Gly Lys Lys Gly Glu Asp Gly Ser Val Ala Asn Gly His
 450 455 460

<210> 296
 <211> 508
 <212> PRT
 <213> HUMAN

<400> 296

Met Gln Arg Leu Leu Thr Pro Val Lys Arg Ile Leu Gln Leu Thr Arg
 1 5 10 15

Ala Val Gln Glu Thr Ser Leu Thr Pro Ala Arg Leu Leu Pro Val Ala
 20 25 30

His Gln Arg Phe Ser Thr Ala Ser Ala Val Pro Leu Ala Lys Thr Asp
 35 40 45

Thr Trp Pro Lys Asp Val Gly Ile Leu Ala Leu Glu Val Tyr Phe Pro
 50 55 60

Ala Gln Tyr Val Asp Gln Thr Asp Leu Glu Lys Tyr Asn Asn Val Glu
 65 70 75 80

Ala Gly Lys Tyr Thr Val Gly Leu Gly Gln Thr Arg Met Gly Phe Cys
 85 90 95

Ser Val Gln Glu Asp Ile Asn Ser Leu Cys Leu Thr Val Val Gln Arg
 100 105 110

Leu Met Glu Arg Ile Gln Leu Pro Trp Asp Ser Val Gly Arg Leu Glu
 115 120 125

Val Gly Thr Glu Thr Ile Ile Asp Lys Ser Lys Ala Val Lys Thr Val
 130 135 140

Leu Met Glu Leu Phe Gln Asp Ser Gly Asn Thr Asp Ile Glu Gly Ile
 145 150 155 160

Asp Thr Thr Asn Ala Cys Tyr Gly Gly Thr Ala Ser Leu Phe Asn Ala
 165 170 175

Ala Asn Trp Met Glu Ser Ser Ser Trp Asp Gly Arg Tyr Ala Met Val
 180 185 190

Val Cys Gly Asp Ile Ala Val Tyr Pro Ser Gly Asn Ala Arg Pro Thr
 195 200 205
 Gly Gly Ala Gly Ala Val Ala Met Leu Ile Gly Pro Lys Ala Pro Leu
 210 215 220
 Ala Leu Glu Arg Gly Leu Arg Gly Thr His Met Glu Asn Val Tyr Asp
 225 230 235 240
 Phe Tyr Lys Pro Asn Leu Ala Ser Glu Tyr Pro Ile Val Asp Gly Lys
 245 250 255
 Leu Ser Ile Gln Cys Tyr Leu Arg Ala Leu Asp Arg Cys Tyr Thr Ser
 260 265 270
 Tyr Arg Lys Lys Ile Gln Asn Gln Trp Lys Gln Ala Gly Ser Asp Arg
 275 280 285
 Pro Phe Thr Leu Asp Asp Leu Gln Tyr Met Ile Phe His Thr Pro Phe
 290 295 300
 Cys Lys Met Val Gln Lys Ser Leu Ala Arg Leu Met Phe Asn Asp Phe
 305 310 315 320
 Leu Ser Ala Ser Ser Asp Thr Gln Thr Ser Leu Tyr Lys Gly Leu Glu
 325 330 335
 Ala Phe Gly Gly Leu Lys Leu Glu Asp Thr Tyr Thr Asn Lys Asp Leu
 340 345 350
 Asp Lys Ala Leu Leu Lys Ala Ser Gln Asp Met Phe Asp Lys Lys Thr
 355 360 365
 Lys Ala Ser Leu Tyr Leu Ser Thr His Asn Gly Asn Met Tyr Thr Ser
 370 375 380
 Ser Leu Tyr Gly Cys Leu Ala Ser Leu Leu Ser His His Ser Ala Gln
 385 390 395 400
 Glu Leu Ala Gly Ser Arg Ile Gly Ala Phe Ser Tyr Gly Ser Gly Leu
 405 410 415
 Ala Ala Ser Phe Phe Ser Phe Arg Val Ser Gln Asp Ala Ala Pro Gly
 420 425 430
 Ser Pro Leu Asp Lys Leu Val Ser Ser Thr Ser Asp Leu Pro Lys Arg

435 440 445
 Leu Ala Ser Arg Lys Cys Val Ser Pro Glu Glu Phe Thr Glu Ile Met
 450 455 460
 Asn Gln Arg Glu Gln Phe Tyr His Lys Val Asn Phe Ser Pro Pro Gly
 465 470 475 480
 Asp Thr Asn Ser Leu Phe Pro Gly Thr Trp Tyr Leu Glu Arg Val Asp
 485 490 495
 Glu Gln His Arg Arg Lys Tyr Ala Arg Arg Pro Val
 500 505

 <210> 297
 <211> 455
 <212> PRT
 <213> Blattella germanica

 <400> 297
 Met Ala His Trp Pro Glu Asp Val Gly Ile Ile Gly Ile Glu Met Ile
 1 5 10 15
 Phe Pro Ser Leu Tyr Val Asp Gln Ala Glu Leu Glu Thr Tyr Asp Glu
 20 25 30
 Val Ser Pro Gly Lys Tyr Thr Met Gly Leu Gly Gln Asp Lys Met Gly
 35 40 45
 Val Cys Thr Asp Arg Glu Asp Ile Asn Ser Leu Cys Leu Thr Ala Val
 50 55 60
 Asp Lys Leu Met Glu Arg Asn Asn Ile Asp Tyr Asn Asp Ile Gly Trp
 65 70 75 80
 Leu Glu Val Gly Thr Glu Thr Ile Leu Asp Lys Val Lys Ser Val Lys
 85 90 95
 Thr Val Leu Met Gln Leu Phe Glu Glu Ser Gly Asn Thr Asp Val Glu
 100 105 110
 Gly Ile Asp Thr Ile Asn Ala Cys Tyr Arg Gly Thr Ala Ala Leu Phe
 115 120 125
 Asn Ala Leu Ile Trp Ile Glu Ser Ser Ser Trp Asp Gly Arg Tyr Ala
 130 135 140

Ile Val Val Ala Ala Asp Ile Ala Ile Tyr Ala Lys Glu Cys Ser Pro
 145 150 155 160

Thr Gly Gly Ala Gly Ala Leu Leu Met Leu Ile Gly Ala Asn Ala Pro
 165 170 175

Ile Val Ile Asp Arg Gly Val Arg Ala Ser His Met Lys His Ala Tyr
 180 185 190

Asp Phe Tyr Lys Pro Asp Leu Met Ser Glu Tyr Pro Val Val Asp Gly
 195 200 205

Lys Leu Ser Val Gln Cys Tyr Leu Ser Ala Leu Asp His Cys Tyr Pro
 210 215 220

Arg Phe Cys Ser Lys Thr Glu Lys Tyr Leu Lys Arg Cys Gly Lys Glu
 225 230 235 240

Asn Thr Lys Ile Asp Leu Asp Tyr Phe Asp Ala Phe Val Phe His Ser
 245 250 255

Pro Tyr Cys Lys Leu Val Gln Lys Ser Val Ala Arg Leu Val Leu Asn
 260 265 270

Asp Phe Ile Gln Tyr Pro Glu Lys Tyr Gln Asp Leu Gln Gln Leu Arg
 275 280 285

Asn Leu Lys Phe Glu Asp Thr Tyr Phe Asp Arg Asp Ile Glu Lys Ile
 290 295 300

Phe Met Asp Lys Ser Lys Gln Leu Phe Glu Lys Lys Thr Lys Pro Ser
 305 310 315 320

Leu Met Leu Ala Asn Gln Val Gly Asn Met Tyr Thr Thr Ser Leu Tyr
 325 330 335

Gly Gly Leu Val Ser Leu Leu Ile Ser Glu Asp Ile Gly Glu Leu Ala
 340 345 350

Gly Lys Cys Ile Cys Met Phe Ser Tyr Gly Ser Gly Phe Ala Ala Ser
 355 360 365

Met Phe Ser Leu His Ile Ser Thr Asp Ser Ser Pro Gly Ser Thr Leu
 370 375 380

Ser Arg Leu Val Thr Asn Leu Thr His Ile Lys Pro Gln Val Gln Gln
385 390 395 400

Arg Val Lys Leu Ser Pro Gly Glu Phe Glu Asn Ile Met Glu Ile Arg
405 410 415

Glu Gln Asn His His Lys Ala Pro Tyr Thr Pro Val Ala Ser Pro Asn
420 425 430

Thr Leu Phe Pro Gly Thr Trp Tyr Leu Glu Ser Ile Asp Ser Met His
435 440 445

Arg Arg Lys Tyr Lys Arg Val
450 455

<210> 298
<211> 453
<212> PRT
<213> Blattella germanica

<400> 298

Met Trp Pro Ser Asp Val Gly Ile Val Ala Leu Glu Leu Ile Phe Pro
1 5 10 15

Ser Gln Tyr Val Asp Gln Val Asp Leu Glu Val Tyr Asp Asn Val Ser
20 25 30

Ala Gly Lys Tyr Thr Val Gly Leu Gly Gln Ala Arg Met Gly Phe Cys
35 40 45

Thr Asp Arg Glu Asp Ile Asn Ser Leu Cys Leu Thr Val Val Ser Arg
50 55 60

Leu Met Glu Arg Trp Ser Ile Pro Tyr Ser Gln Ile Gly Arg Leu Glu
65 70 75 80

Val Gly Thr Glu Thr Leu Leu Asp Lys Ser Lys Ser Val Lys Thr Val
85 90 95

Leu Met Gln Leu Phe Lys Asp Asn Thr Asp Ile Glu Gly Val Asp Thr
100 105 110

Val Asn Ala Cys Tyr Gly Gly Thr Ser Ala Leu Phe Asn Ala Ile Ser
115 120 125

Trp Val Glu Ser Ser Ser Trp Asp Gly Arg Tyr Ala Leu Val Val Ala
130 135 140

Gly Asp Ile Ala Val Tyr Ala Lys Gly Ser Ala Arg Pro Thr Gly Gly
 145 150 155 160

Ala Gly Ala Val Ala Met Leu Val Gly Ala Asn Ala Pro Leu Val Phe
 165 170 175

Asp Arg Gly Val Arg Ser Ser His Met Gln His Ala Tyr Asp Phe Tyr
 180 185 190

Lys Pro Asp Leu Ser Ser Leu Tyr Pro Thr Val Asp Gly Lys Leu Ser
 195 200 205

Ile Gln Cys Tyr Leu Ser Ala Leu Asp His Cys Tyr Gln Leu Tyr Cys
 210 215 220

Ser Lys Ile Gln Lys Gln Leu Gly Glu Lys Phe Asp Ile Glu Arg Leu
 225 230 235 240

Asp Ala Val Leu Phe His Ala Pro Tyr Cys Lys Leu Val Gln Lys Ser
 245 250 255

Leu Ala Arg Leu Val Leu Asn Asp Phe Val Arg Ala Ser Glu Glu Glu
 260 265 270

Arg Thr Thr Lys Tyr Ser Ser Leu Glu Ala Leu Lys Gly Val Lys Leu
 275 280 285

Glu Asp Thr Tyr Phe Asp Arg Glu Val Glu Lys Ala Val Met Thr Tyr
 290 295 300

Ser Lys Asn Met Phe Glu Glu Lys Thr Lys Pro Ser Leu Leu Leu Ala
 305 310 315 320

Asn Gln Val Gly Asn Met Tyr Thr Pro Ser Leu Tyr Gly Gly Leu Val
 325 330 335

Ser Leu Leu Val Ser Lys Ser Ala Gln Glu Leu Ala Gly Lys Arg Val
 340 345 350

Ala Leu Phe Ser Tyr Gly Ser Gly Leu Ala Ser Ser Met Phe Ser Leu
 355 360 365

Arg Ile Ser Ser Asp Ala Ser Ala Lys Ser Ser Leu Gln Arg Leu Val
 370 375 380

Ser Asn Leu Ser His Ile Lys Pro Gln Leu Asp Leu Arg His Lys Val
 385 390 395 400

Ser Pro Glu Glu Phe Ala Gln Thr Met Glu Thr Arg Glu His Asn His
 405 410 415

His Lys Ala Pro Tyr Thr Pro Glu Gly Ser Ile Asp Val Leu Phe Pro
 420 425 430

Gly Thr Trp Tyr Leu Glu Ser Val Asp Ser Leu Tyr Arg Arg Ser Tyr
 435 440 445

Lys Gln Val Pro Gly
 450

<210> 299
 <211> 593
 <212> PRT
 <213> *Camptotheca acuminata*

<400> 299

Met Asp Val Arg Arg Arg Ser Ile Asn Ser Ile His Gln Ile Pro Ser
 1 5 10 15

Val Gly Gly Thr Ala Pro Pro Met Leu Lys Pro Lys Gln Pro Thr Lys
 20 25 30

Val Asp Ala Val Asp Leu Pro Asp Ser Pro Lys Ala Ser Asp Ala Leu
 35 40 45

Pro Leu Pro Leu Tyr Ile Thr Asn Gly Val Phe Phe Thr Leu Phe Phe
 50 55 60

Thr Val Val Tyr Tyr Leu Leu Val Arg Trp Arg Glu Lys Ile Arg Asn
 65 70 75 80

Ser Thr Pro Leu His Val Val Thr Leu Ser Glu Ile Ala Ala Ile Phe
 85 90 95

Thr Phe Val Ala Ser Phe Ile Tyr Leu Leu Gly Phe Phe Gly Ile Gly
 100 105 110

Leu Val Gln Pro Phe Thr Ser Arg Ser Ser His Asp Asp Val Trp Gly
 115 120 125

Val Asp Asp Asp Glu Asp Val Asp Glu Ile Val Leu Lys Glu Asp Thr

130	135	140															
Arg	Thr	Val	Pro	Cys	Ala	Ala	Ala	Pro	Val	Asp	Cys	Pro	Leu	Pro	Pro		
145					150					155					160		
Ile	Lys	Pro	Lys	Val	Val	Asp	Pro	Val	Pro	Ile	Ser	Pro	Pro	Ser	Ser		
				165					170					175			
Glu	Glu	Asp	Glu	Glu	Ile	Ile	Lys	Ser	Val	Val	Glu	Gly	Thr	Thr	Pro		
			180					185					190				
Ser	Tyr	Ala	Leu	Glu	Ser	Lys	Leu	Gly	Asp	Ser	His	Arg	Ala	Ala	Ala		
		195					200				205						
Ile	Arg	Arg	Glu	Ala	Leu	Gln	Arg	Met	Thr	Lys	Lys	Ser	Leu	Ala	Gly		
	210					215					220						
Leu	Pro	Leu	Asp	Gly	Phe	Asp	Tyr	Asp	Ser	Ile	Leu	Gly	Gln	Cys	Cys		
225					230					235				240			
Glu	Met	Pro	Val	Gly	Tyr	Val	Gln	Ile	Pro	Val	Gly	Ile	Ala	Gly	Pro		
				245					250					255			
Leu	Leu	Leu	Asp	Gly	Arg	Glu	Tyr	Ser	Val	Pro	Met	Ala	Thr	Thr	Glu		
			260					265					270				
Gly	Cys	Leu	Val	Ala	Ser	Thr	Asn	Arg	Gly	Cys	Lys	Ala	Ile	Phe	Ala		
		275					280					285					
Cys	Gly	Gly	Ala	Thr	Ser	Val	Leu	Leu	Arg	Asp	Ala	Met	Thr	Arg	Ala		
	290					295					300						
Pro	Val	Val	Arg	Phe	Gly	Ser	Ala	Lys	Arg	Ala	Ala	Asp	Leu	Lys	Phe		
305					310					315					320		
Phe	Leu	Glu	Asn	Pro	Leu	Asn	Phe	Glu	Thr	Leu	Ala	Ala	Val	Phe	Asn		
				325					330					335			
Ser	Ser	Ser	Arg	Phe	Gly	Lys	Leu	Gln	Asn	Ile	Lys	Cys	Ala	Ile	Ala		
			340					345					350				
Gly	Lys	Asn	Leu	Tyr	Met	Arg	Tyr	Ser	Cys	Ser	Thr	Gly	Asp	Ala	Met		
		355					360					365					
Gly	Met	Asn	Met	Ile	Ser	Lys	Gly	Val	Gln	Asn	Val	Leu	Asp	Phe	Leu		
	370					375					380						

Gln Asp Asp Phe Pro Asp Met Asp Val Ile Gly Ile Ser Gly Asn Tyr
385 390 395 400

Cys Ser Asp Lys Lys Pro Ala Ala Val Asn Trp Ile Glu Gly Arg Gly
405 410 415

Lys Ser Val Val Cys Glu Ala Val Ile Lys Glu Glu Val Val Lys Lys
420 425 430

Val Leu Lys Thr Asn Val Ala Ser Leu Val Glu Leu Asn Met Leu Lys
435 440 445

Asn Leu Thr Gly Ser Ala Met Ala Gly Ala Leu Gly Gly Phe Asn Ala
450 455 460

His Ala Ser Asn Ile Val Ser Ala Val Tyr Leu Ala Thr Gly Gln Asp
465 470 475 480

Pro Ala Gln Asn Val Glu Ser Ser His Cys Ile Thr Met Met Glu Ala
485 490 495

Ile Asn Asp Gly Lys Asp Leu His Val Ser Val Thr Met Pro Ser Ile
500 505 510

Glu Val Gly Thr Val Gly Gly Gly Thr Gln Leu Ala Ser Gln Ser Ala
515 520 525

Cys Leu Asn Leu Leu Gly Val Lys Gly Ala Ser Lys Glu Ala Pro Gly
530 535 540

Ser Asn Ala Arg Leu Leu Ala Thr Ile Val Ala Gly Ser Val Leu Ala
545 550 555 560

Gly Glu Leu Ser Leu Met Ser Ala Ile Ala Ala Gly Gln Leu Val Asn
565 570 575

Ser His Met Lys Tyr Asn Arg Ser Asn Lys Asp Val Thr Lys Ala Ser
580 585 590

Ser

<210> 300
<211> 602
<212> PRT

<213> Lycopersicon esculentum

<400> 300

Met Asp Val Arg Arg Arg Ser Glu Glu Pro Val Tyr Pro Ser Lys Val
1 5 10 15

Phe Ala Ala Asp Glu Lys Pro Leu Lys Pro His Lys Lys Gln Gln Gln
20 25 30

Gln Gln Glu Asp Lys Asn Thr Leu Leu Ile Asp Ala Ser Asp Ala Leu
35 40 45

Pro Leu Pro Leu Tyr Leu Thr Thr Asn Gly Leu Phe Phe Thr Met Phe
50 55 60

Phe Ser Val Met Tyr Phe Leu Leu Ser Arg Trp Arg Glu Lys Ile Arg
65 70 75 80

Asn Ser Thr Pro Leu His Val Val Thr Leu Ser Glu Leu Gly Ala Ile
85 90 95

Val Ser Leu Ile Ala Ser Val Ile Tyr Leu Leu Gly Phe Phe Gly Ile
100 105 110

Gly Phe Val Gln Thr Phe Val Ser Arg Gly Asn Asn Asp Ser Trp Asp
115 120 125

Glu Asn Asp Glu Glu Phe Leu Leu Lys Glu Asp Ser Arg Cys Gly Pro
130 135 140

Ala Thr Thr Leu Gly Cys Ala Val Pro Ala Pro Pro Ala Arg Gln Ile
145 150 155 160

Ala Pro Met Ala Pro Pro Gln Pro Ser Met Ser Met Val Glu Lys Pro
165 170 175

Ala Pro Leu Ile Thr Ser Ala Ser Ser Gly Glu Asp Glu Glu Ile Ile
180 185 190

Lys Ser Val Val Gln Gly Lys Ile Pro Ser Tyr Ser Leu Glu Ser Lys
195 200 205

Leu Gly Asp Cys Lys Arg Ala Ala Ser Ile Arg Lys Glu Val Met Gln
210 215 220

Arg Ile Thr Gly Lys Ser Leu Glu Gly Leu Pro Leu Glu Gly Phe Asn

225		230		235		240									
Tyr	Glu	Ser	Ile	Leu	Gly	Gln	Cys	Cys	Glu	Met	Pro	Ile	Gly	Tyr	Val
				245					250					255	
Gln	Ile	Pro	Val	Gly	Ile	Ala	Gly	Pro	Leu	Leu	Leu	Asn	Gly	Lys	Glu
			260					265					270		
Phe	Ser	Val	Pro	Met	Ala	Thr	Thr	Glu	Gly	Cys	Leu	Val	Ala	Ser	Thr
		275					280					285			
Asn	Arg	Gly	Cys	Lys	Ala	Ile	Tyr	Ala	Ser	Gly	Gly	Ala	Thr	Cys	Ile
	290					295					300				
Leu	Leu	Arg	Asp	Gly	Met	Thr	Arg	Ala	Pro	Cys	Val	Arg	Phe	Gly	Thr
305					310					315					320
Ala	Lys	Arg	Ala	Ala	Glu	Leu	Lys	Phe	Phe	Val	Glu	Asp	Pro	Ile	Lys
			325						330					335	
Phe	Glu	Ser	Leu	Ala	Asn	Val	Phe	Asn	Gln	Ser	Ser	Arg	Phe	Ala	Arg
			340					345					350		
Leu	Gln	Arg	Ile	Gln	Cys	Ala	Ile	Ala	Gly	Lys	Asn	Leu	Tyr	Met	Arg
		355					360					365			
Leu	Cys	Cys	Ser	Thr	Gly	Asp	Ala	Met	Gly	Met	Asn	Met	Val	Ser	Lys
	370					375					380				
Gly	Val	Gln	Asn	Val	Leu	Asp	Tyr	Leu	Gln	Asn	Glu	Tyr	Pro	Asp	Met
385					390					395					400
Asp	Val	Ile	Gly	Ile	Ser	Gly	Asn	Phe	Cys	Ser	Asp	Lys	Lys	Pro	Ala
			405					410						415	
Ala	Val	Asn	Trp	Ile	Glu	Gly	Arg	Gly	Lys	Ser	Val	Val	Cys	Glu	Ala
			420					425					430		
Ile	Ile	Thr	Glu	Glu	Val	Val	Lys	Lys	Val	Leu	Lys	Thr	Glu	Val	Ala
		435					440					445			
Ala	Leu	Val	Glu	Leu	Asn	Met	Leu	Lys	Asn	Leu	Thr	Gly	Ser	Ala	Met
	450					455					460				
Ala	Gly	Ala	Leu	Gly	Gly	Phe	Asn	Ala	His	Ala	Ser	Asn	Ile	Val	Ser
465				470					475						480

Ala Val Phe Ile Ala Thr Gly Gln Asp Pro Ala Gln Asn Ile Glu Ser
485 490 495

Ser His Cys Ile Thr Met Met Glu Ala Val Asn Asp Gly Lys Asp Leu
500 505 510

His Ile Ser Val Thr Met Pro Ser Ile Glu Val Gly Thr Val Gly Gly
515 520 525

Gly Thr Gln Leu Ala Ser Gln Ser Ala Cys Leu Asn Leu Leu Gly Val
530 535 540

Lys Gly Ala Asn Arg Glu Ala Pro Gly Ser Asn Ala Arg Leu Leu Ala
545 550 555 560

Thr Val Val Ala Gly Ser Val Leu Ala Gly Glu Leu Ser Leu Met Ser
565 570 575

Ala Ile Ser Ser Gly Gln Leu Val Asn Ser His Met Lys Tyr Asn Arg
580 585 590

Ser Thr Lys Asp Val Thr Lys Ala Ser Ser
595 600

<210> 301

<211> 481

<212> PRT

<213> Dictyostelium discoideum

<400> 301

Lys Gly Lys Ser Val Asn Val Glu Asp Leu Lys Asp Gln Glu Ile Ile
1 5 10 15

Ala Leu Val Asp Lys Gly Glu Ile Gln Pro His Asn Leu Glu Thr Arg
20 25 30

Leu Pro Asn Asn Phe Gln Arg Ala Val His Ile Arg Arg Lys Leu Leu
35 40 45

Ala Arg Asp Leu Gln Lys Glu His Gln Arg Ala Leu His Ala Gln Ala
50 55 60

Val Val Ala Ala Ala Glu Lys Ala Ala Thr Ser Gly Glu Asp Pro Ser
65 70 75 80

Ser Ile Gln Pro Val Val Pro Pro Thr Ser Asn Leu Asp Phe Glu Gly
 85 90 95

Ser Leu Thr Asn Leu Pro Val Asp His Phe Asp Tyr Thr Lys Val Leu
 100 105 110

Gly Ala Cys Cys Glu Asn Val Ile Gly Tyr Ile Pro Ile Pro Val Gly
 115 120 125

Val Ala Gly Pro Ile Leu Leu Asp Gly Lys Leu Val Ser Ile Pro Met
 130 135 140

Ala Thr Thr Glu Gly Cys Leu Val Ala Ser Thr His Arg Gly Ala Lys
 145 150 155 160

Ala Ile Thr Lys Ser Gly Gly Ala Lys Thr Val Leu Leu Gln Ser Gly
 165 170 175

Met Thr Arg Ala Pro Val Cys Arg Leu Pro Ser Ser Ile Arg Ala Gly
 180 185 190

Glu Leu Lys Gln Trp Ile Glu Asn Gln Glu Asn Phe Tyr Gln Val Ala
 195 200 205

Ser Ala Phe Asn Ser Thr Ser Arg Phe Ala Arg Leu Lys Ser Ile Lys
 210 215 220

Val Val Ile Ala Gly Arg Leu Val Tyr Leu Arg Phe Lys Ser Ser Thr
 225 230 235 240

Gly Asp Ala Met Gly Met Asn Met Val Ser Lys Gly Val Glu Lys Ala
 245 250 255

Leu Glu Val Ile Thr Glu Tyr Phe Pro Glu Met Glu Val Leu Ser Leu
 260 265 270

Ser Gly Asn Val Cys Thr Asp Lys Lys Pro Ser Ser Ile Asn Trp Leu
 275 280 285

Glu Gly Arg Gly Lys Ser Val Val Ala Glu Ala Val Ile Ser Gly Asp
 290 295 300

Ile Val Arg Asp Val Leu Lys Thr Thr Val Glu Ala Leu Val Ser Leu
 305 310 315 320

Asn Ile Asp Lys Asn Leu Ile Gly Ser Ala Met Ala Gly Ser Ile Gly

Ser Asn Phe Leu Val Pro Ile Leu Ser Asn Asn Val Ile Val Thr Gly
 50 55 60

Glu Glu Ala Val Gln Tyr Glu Lys Pro Leu Pro Tyr Ile Pro Gln His
 65 70 75 80

Asn Gln Gln Gln Gln Gln Lys Gln Gln Pro Ser Gln Asp Tyr Ile Gln
 85 90 95

Gln Pro Gln Asn Asp Asn Asn Ile Asn Ser Gly Lys Glu Gln Glu Gln
 100 105 110

Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Thr Pro Asp Ile Thr Asn
 115 120 125

Gln Pro Thr Lys Thr Asn Lys Lys Ile Pro Ile Lys Glu Leu Ser Asn
 130 135 140

Glu Glu Ile Leu Ile Lys Leu Glu Lys Gly Glu Val Leu Ala Tyr Arg
 145 150 155 160

Leu Glu Asn Glu Leu Gly Asp Cys Ser Arg Ala Val Glu Ile Arg Arg
 165 170 175

Met Leu Leu Glu Lys Gln Leu Ser Lys Lys Ile Glu Pro Ile Pro His
 180 185 190

Glu Gly Phe Asp Phe Ala Lys Val Gln Gly Gln Cys Cys Glu Asn Val
 195 200 205

Ile Gly Tyr Val Pro Ile Pro Val Gly Thr Ala Gly Pro Ile Gln Leu
 210 215 220

Asn Gly Gln Leu Val Thr Ile Pro Met Ala Thr Thr Glu Gly Cys Leu
 225 230 235 240

Val Ala Ser Thr His Arg Gly Cys Lys Ala Ile Thr Glu Ser Gly Gly
 245 250 255

Ala Lys Cys Thr Ile Thr Ser Arg Gly Met Thr Arg Ala Pro Val Val
 260 265 270

Arg Phe Ser Asp Ile Val Lys Ala Ser Glu Phe Val Ser Trp Ile Asn
 275 280 285

Asp Thr Asp Asn Tyr Gln Ala Leu Lys Ala Val Phe Asp Ser Thr Ser
 290 295 300
 Arg Phe Ala Arg Leu Ser Ala Ile Lys Cys Thr Ile Ala Gly Arg Ser
 305 310 315 320
 Val Tyr Ile Arg Phe Lys Cys Asp Thr Gly Asp Ala Met Gly Met Asn
 325 330 335
 Met Val Ser Lys Gly Val Glu Ala Val Leu Glu His Leu Lys Ile Ile
 340 345 350
 Phe Asp Asp Met Thr Leu Leu Ser Ile Ser Gly Asn Met Cys Thr Asp
 355 360 365
 Lys Lys Pro Ser Ser Ile Asn Trp Thr Glu Gly Arg Gly Arg Ser Val
 370 375 380
 Val Cys Glu Ala Met Ile Thr Gly Asp Val Val Gln Arg Val Leu Lys
 385 390 395 400
 Thr Asn Val Gln Ala Leu Val Asp Leu Asn Ile Ala Lys Asn Leu Ile
 405 410 415
 Gly Ser Ala Met Ala Gly Ser Ile Gly Gly Phe Asn Ala His Ala Ser
 420 425 430
 Asn Ile Val Thr Ala Ile Phe Leu Ala Thr Gly Gln Asp Cys Ala Gln
 435 440 445
 Asn Val Glu Ser Ser Asn Cys Ile Thr Gln Met Glu Ala Cys Asn Asp
 450 455 460
 Gly Gln Asp Leu Tyr Ile Thr Val Thr Met Pro Ser Ile Glu Val Gly
 465 470 475 480
 Thr Val Gly Gly Gly Thr Ser Leu Pro Ala Gln Ser Ala Cys Leu Asp
 485 490 495
 Ile Ile Gly Val Lys Gly Ser Ser Ser Ser Lys Pro Gly Ala Asn Ala
 500 505 510
 Asp Gln Leu Ala Lys Thr Ile Ala Ser Ala Val Met Ala Gly Glu Leu
 515 520 525
 Ser Leu Met Ser Ala Leu Ser Ala Gly His Leu Met Lys Ser His Leu

530

535

540

Gln Tyr Asn Arg Ala Lys Thr Asn
545 550

<210> 303
<211> 224
<212> PRT
<213> Mus musculus

<400> 303

Glu Lys Ala Leu Leu Lys Leu Gln Glu Phe Phe Pro Asp Met Gln Ile
1 5 10 15

Leu Ala Val Ser Gly Asn Tyr Cys Thr Asp Lys Lys Pro Ala Ala Ile
20 25 30

Asn Trp Ile Glu Gly Arg Gly Lys Thr Val Val Cys Glu Ala Val Ile
35 40 45

Pro Ala Lys Val Val Arg Glu Val Leu Lys Thr Thr Thr Glu Ala Met
50 55 60

Val Asp Val Asn Ile Asn Lys Asn Leu Val Gly Ser Ala Met Ala Gly
65 70 75 80

Ser Ile Gly Gly Tyr Asn Ala His Ala Ala Asn Ile Val Thr Ala Ile
85 90 95

Tyr Ile Ala Cys Gly Gln Asp Ala Ala Gln Asn Val Gly Ser Ser Asn
100 105 110

Cys Ile Thr Leu Met Glu Ala Ser Gly Pro Thr Asn Glu Asp Leu Tyr
115 120 125

Ile Ser Cys Thr Met Pro Ser Ile Glu Ile Gly Thr Val Gly Gly Gly
130 135 140

Thr Asn Leu Leu Pro Gln Gln Ala Cys Leu Gln Met Leu Gly Val Gln
145 150 155 160

Gly Ala Cys Lys Asp Asn Pro Gly Glu Asn Ala Arg Gln Leu Ala Arg
165 170 175

Ile Val Cys Gly Thr Val Met Ala Gly Glu Leu Ser Leu Met Ala Ala
180 185 190

Leu Ala Ala Gly His Leu Val Arg Ser His Met Val His Asn Arg Ser
195 200 205

Lys Ile Asn Leu Gln Asp Leu Gln Gly Thr Cys Thr Lys Lys Ala Ala
210 215 220

<210> 304

<211> 883

<212> PRT

<213> Xenopus laevis

<400> 304

Met Leu Ser Arg Leu Phe Arg Met His Gly Gln Phe Val Ala Ser His
1 5 10 15

Pro Trp Glu Val Ile Val Gly Thr Val Thr Leu Thr Ile Cys Met Met
20 25 30

Ser Met Asn Met Phe Thr Gly Asn Asp Lys Ile Cys Gly Trp Asn Tyr
35 40 45

Ala Cys Pro Lys Phe Glu Glu Asp Val Leu Ser Ser Asp Ile Ile Ile
50 55 60

Leu Thr Ile Thr Arg Cys Ile Ala Ile Leu Tyr Ile Tyr Phe Gln Phe
65 70 75 80

Gln Asn Leu Arg Gln Leu Gly Ser Lys Tyr Ile Leu Gly Ile Ala Gly
85 90 95

Leu Phe Thr Ile Phe Ser Ser Phe Val Phe Ser Thr Val Val Ile His
100 105 110

Phe Leu Asp Lys Glu Leu Thr Gly Leu Asn Glu Ala Leu Pro Phe Phe
115 120 125

Leu Leu Leu Ile Asp Leu Ser Lys Ala Ser Ala Leu Ala Lys Phe Ala
130 135 140

Leu Ser Ser Asn Ser Gln Asp Glu Val Arg Asp Asn Ile Ala Arg Gly
145 150 155 160

Met Ala Ile Leu Gly Pro Thr Phe Thr Leu Glu Ala Leu Val Glu Cys
165 170 175

Leu Val Ile Gly Val Gly Thr Met Ser Gly Val Arg Gln Leu Glu Ile

180					185					190					
Met	Cys	Cys	Phe	Gly	Cys	Met	Ser	Val	Leu	Ala	Asn	Tyr	Phe	Ala	Phe
	195						200					205			
Met	Thr	Phe	Phe	Pro	Ala	Cys	Val	Ser	Leu	Val	Leu	Glu	Leu	Ser	Arg
	210					215					220				
Glu	Ser	Arg	Glu	Gly	Arg	Pro	Ile	Trp	Gln	Leu	Ser	Gln	Phe	Ala	Ser
225					230					235					240
Val	Leu	Glu	Glu	Glu	Glu	Asp	Asn	Lys	Pro	Asn	Pro	Val	Thr	Gln	Arg
				245					250					255	
Val	Lys	Met	Ile	Met	Ser	Leu	Gly	Leu	Val	Leu	Val	His	Ala	His	Ser
			260					265					270		
Arg	Trp	Ile	Ser	Glu	Pro	Ser	Ser	Gln	Asn	Ser	Thr	Ser	Ile	Ser	Asp
		275					280					285			
His	Glu	Val	Thr	Thr	Met	Leu	Asp	Asp	Met	Met	Pro	Lys	Arg	Val	Glu
	290					295					300				
Pro	Ser	Met	Pro	Leu	Trp	Gln	Phe	Tyr	Leu	Ser	Arg	Met	Val	Thr	Met
305					310					315					320
Asp	Val	Glu	Gln	Ile	Ile	Thr	Leu	Gly	Leu	Ala	Leu	Leu	Leu	Ala	Val
				325					330					335	
Lys	Tyr	Ile	Phe	Phe	Glu	Gln	Thr	Glu	Thr	Glu	Ser	Thr	Phe	Ser	Met
			340					345					350		
Lys	Asn	Pro	Ile	Ile	Ser	Pro	Val	Ala	Val	Gln	Lys	Lys	Gln	Ile	Glu
		355					360					365			
Ser	Cys	Cys	Arg	Arg	Glu	Pro	Glu	Gln	Glu	Lys	Thr	Val	His	Val	Ser
	370					375					380				
Thr	Thr	Glu	Glu	Ala	Ser	Ser	Lys	Glu	Glu	Thr	Glu	Ala	Val	Ile	Lys
385					390					395					400
Pro	Leu	Pro	Leu	Glu	Thr	Ser	Pro	Lys	Ala	Lys	Phe	Ile	Val	Gly	Asp
				405					410					415	
Ser	Ser	Pro	Leu	Glu	Leu	Ser	Pro	Glu	Asp	Lys	Asn	Thr	Met	Phe	Asp
			420					425					430		

Leu Pro Glu Glu Pro Arg Pro Leu Asp Glu Cys Val Arg Ile Leu Lys
435 440 445

Asn Pro Asp Lys Gly Ala Gln Tyr Leu Thr Asp Ala Glu Val Ile Ser
450 455 460

Leu Val Asn Ala Lys His Ile Pro Ala Tyr Lys Leu Glu Thr Met Met
465 470 475 480

Glu Ser Pro Arg Glu Gly Val Ala Ile Arg Arg Gln Met Leu Ser Asp
485 490 495

Lys Leu Pro Gln Arg Ser Ala Leu Gln Ser Leu Pro Tyr Lys Asn Tyr
500 505 510

Asn Tyr Ser Leu Val Met Gly Ala Cys Cys Glu Asn Val Ile Gly Tyr
515 520 525

Met Pro Ile Pro Val Gly Val Ala Gly Pro Leu Leu Leu Asn Asn Lys
530 535 540

Glu Tyr Gln Val Pro Met Ala Thr Thr Glu Gly Cys Leu Val Ala Ser
545 550 555 560

Thr Asn Arg Gly Cys Arg Ala Ile Met Leu Gly Gly Gly Ala Lys Ser
565 570 575

Arg Val Leu Ala Asp Gly Met Thr Arg Gly Pro Val Val Arg Leu Pro
580 585 590

Thr Ala Cys Asp Ala Ala Glu Val Lys Ala Trp Leu Asp Ser Ala Glu
595 600 605

Gly Phe Lys Val Ile Lys Asp Ala Phe Asp Ser Thr Ser Arg Phe Ala
610 615 620

Arg Leu Gly Arg Leu Gln Asn Cys Val Ala Gly Arg Asn Leu Tyr Ile
625 630 635 640

Arg Phe Gln Ser Lys Thr Gly Asp Ala Met Gly Met Asn Met Ile Ser
645 650 655

Lys Val Thr Glu Gln Ala Leu Ala Arg Leu Gln Glu Glu Phe Pro Asp
660 665 670

Leu His Val Leu Ala Val Ser Gly Asn Tyr Cys Thr Asp Lys Lys Pro
675 680 685

Ala Ala Ile Asn Trp Ile Glu Gly Arg Gly Lys Ser Val Val Cys Glu
690 695 700

Ala Ile Ile Pro Ala Lys Val Val Arg Glu Val Leu Lys Ser Ser Thr
705 710 715 720

Glu Ala Leu Val Glu Val Asn Ile Asn Lys Asn Phe Ile Gly Ser Ala
725 730 735

Met Ala Gly Ser Ile Gly Gly Tyr Asn Ala His Ala Ala Asn Ile Val
740 745 750

Thr Ala Ile Tyr Ile Ala Cys Gly Gln Asp Ala Ala Gln Asn Val Gly
755 760 765

Ser Ser Asn Cys Ile Thr Ile Met Glu Ala Thr Gly Pro Thr Tyr Glu
770 775 780

Asp Leu Tyr Ile Ser Cys Thr Met Pro Ser Ile Glu Ile Gly Thr Val
785 790 795 800

Gly Gly Gly Thr Asn Leu Ala Pro Gln Gln Ala Cys Leu Gln Met Leu
805 810 815

Gly Val Gln Gly Ala Ser Thr Glu Thr Pro Gly Lys Asn Ala Cys Gln
820 825 830

Leu Ala Gln Ile Val Cys Ser Thr Val Met Ala Gly Glu Leu Ser Leu
835 840 845

Met Ala Ala Leu Ala Ala Gly His Leu Val Lys Ser His Met Val His
850 855 860

Asn Arg Ser Lys Ile Asn Leu Gln Asp Leu Pro Gly Thr Cys Thr Lys
865 870 875 880

Lys Ala Ala

<210> 305
<211> 948
<212> PRT
<213> Schistosoma mansoni

<400> 305

Met Leu Lys Ile Leu Asn Thr Val Leu Leu Phe Phe Asp Cys Phe Ser
1 5 10 15

Thr Gly Thr Phe Phe Val Leu Leu Ile Tyr Leu Phe Thr Arg Leu Arg
20 25 30

Thr His Leu Leu His Phe Ser Ser Ser Asn Cys His Leu Asp Val Ile
35 40 45

Ile Tyr Gln Ser Arg Ala Val Ile Ile Phe Leu Val Val Phe Val Tyr
50 55 60

Phe Ile Gly Val Leu Thr Cys Lys Ile Asn Asp Lys Ile Leu Val His
65 70 75 80

Thr Met Leu Arg Asn Lys Arg Gln Leu Asn Thr Leu Phe Tyr Thr Leu
85 90 95

Ile Leu Phe Thr Phe Ala Leu Cys Ser Leu Ser Ser Val Leu Phe Val
100 105 110

Pro Tyr Thr Ser Phe Ala Ile Phe Leu Leu Ser Thr Ser Val Phe Leu
115 120 125

Leu Phe Ser Asp Leu Ser Val Phe Phe Ile Val Leu Glu Tyr Tyr Leu
130 135 140

Leu Glu Ile Glu Leu Val Asn Tyr Glu His Ala Lys Arg His Cys Leu
145 150 155 160

Leu Ser His Leu Phe Ser Asn Gln Leu Phe Val Asp His Met Leu Gly
165 170 175

Met Phe Leu Lys Thr Ser Leu Phe Ser Ile Ser Thr Thr Ser Lys Tyr
180 185 190

Ala Tyr Leu Glu Ser Ile Phe Lys Cys Thr Leu Met Glu Gln Ile Ile
195 200 205

Tyr Ile Met Ile Val Phe Val Phe Leu Pro Ser Phe Met Arg Ile Phe
210 215 220

Ala Ser Tyr Ala Lys Arg Met Tyr Gly Glu Gln Lys Lys Cys Leu Val
225 230 235 240

Ser Asn Lys Gly Val Ser Ser Ser Thr Arg Lys Arg Arg His Ser Tyr
 245 250 255

Ser Ser Gly His Ser Tyr Val Glu Tyr Arg Arg Met Ser Val His Asn
 260 265 270

Leu Ile Gly Tyr Val Val Asn Pro Asn Cys His Tyr Lys Cys Trp Ser
 275 280 285

Thr Thr Phe Val Ile Phe Val Ser Leu Ile Ile Leu His Leu Asn Asn
 290 295 300

Arg Tyr Ser Glu Arg Ile Ser Ser Phe Lys His Asn Ser Ser Glu Asn
 305 310 315 320

Glu Val Phe Pro Val Leu Tyr His Ile Thr Ala Tyr Glu Val Thr Ser
 325 330 335

Ile Phe His Phe Ile Tyr Asn Ile Phe His Val Ile Asn Ala Asn Leu
 340 345 350

Val Val Tyr Leu Phe Leu Gly Leu Phe Leu Phe Lys Arg Ile Arg Leu
 355 360 365

Asn Lys Pro Ile Asn Ser Gln Leu Arg Asn Leu Asn Ile Pro Lys Ile
 370 375 380

Lys Glu Thr Leu Ile Ser Asp Gln Val Lys Gln Ser Pro Val Leu Pro
 385 390 395 400

Lys Phe Ser Lys Lys Leu Asn Asp Ile Pro Leu Gln Ser Arg Lys Arg
 405 410 415

Ile Tyr Cys Leu His Lys Asp Asp Asp Tyr Ile Asp Arg Asn Asp Ser
 420 425 430

Ser Ser Val Ser Thr Phe Ser Asn Thr Cys Lys Asn Ser Asn Glu Arg
 435 440 445

Pro Ser Asn Val Leu Asp Leu Asp Met Leu Thr Glu Lys Ile Lys Gln
 450 455 460

Gly Leu Gly His Glu Leu Ser Asp Thr Glu Ile Leu Gln Leu Leu Ser
 465 470 475 480

His Gly Arg Leu Lys Thr Arg Glu Leu Glu Ser Val Val Arg Asn Pro
 485 490 495

Phe Arg Ala Val Glu Leu Arg Arg Leu Asp Leu Ser Thr Phe Leu Asn
 500 505 510

Asn Pro His Ile Ile Glu Arg Ile Pro Tyr Lys Asp Tyr Asp Tyr Arg
 515 520 525

Leu Val Tyr Gly Gln Cys Cys Glu Glu Val Ile Gly Tyr Met Pro Ile
 530 535 540

Pro Val Gly Lys Ile Gly Pro Leu Leu Leu Asp Gly Arg Ser His Tyr
 545 550 555 560

Ile Pro Leu Ala Thr Thr Glu Gly Cys Leu Val Ala Ser Thr Asn Arg
 565 570 575

Gly Cys Arg Ala Ile Phe Leu Ala Gly Gly Ile Lys Ser Val Val Tyr
 580 585 590

Arg Asp Gln Met Thr Arg Ala Pro Val Val Trp Phe Pro Ser Ile Ile
 595 600 605

Asp Ser Val Lys Cys Ile Ala Trp Ile Asp Ser Glu Glu Gly Phe Gln
 610 615 620

Thr Leu Lys Ser Ala Phe Asp Lys Thr Ser Ala His Val Asn Leu Leu
 625 630 635 640

Ser Val Phe Ala Cys Pro Ala Gly Arg Tyr Ile His Ile Arg Phe Ala
 645 650 655

Ala Arg Thr Gly Asp Ala Met Gly Met Asn Met Val Ser Lys Ala Thr
 660 665 670

Asp Ser Ala Leu His Cys Leu Lys Lys Tyr Phe Ser Asn Met Gln Val
 675 680 685

Ile Ser Leu Ser Gly Asn Met Cys Thr Asp Lys Lys Pro Ala Thr Ile
 690 695 700

Asn Thr Ile Leu Gly Arg Gly Lys Ser Val Ile Ala Glu Ala His Leu
 705 710 715 720

Ser Ala Asp Val Leu Ala Gln Val Leu His Thr Asn Ala Gln Arg Leu
725 730 735

Ala Arg Leu Thr His Ser Lys Asn Trp Ile Gly Ser Ala Met Ala Gly
740 745 750

Cys Pro Gly Met Met Gly Cys Asn Ala His Ala Ala Asn Ile Ile Ala
755 760 765

Gly Met Phe Ala Ala Thr Gly Gln Asp Leu Ala Gln Val Val Asp Ser
770 775 780

Ser Ser Cys Leu Thr Gln Leu Glu Val Asp Leu Ser Asp Asp Ser Leu
785 790 795 800

Val Ala Ser Val Thr Met Pro Cys Leu Glu Val Gly Thr Val Gly Gly
805 810 815

Gly Thr Arg Leu Ser Gly Gln Arg Ala Cys Leu Asp Leu Leu Asp Leu
820 825 830

Ser Val Asp Arg Pro Thr Glu His Leu Ser Arg Ile Ile Ala Gly Thr
835 840 845

Val Leu Ala Ala Glu Leu Ser Leu Met Ala Ala Leu Asp Thr Asp Asp
850 855 860

Leu Val Lys Ala His Met His Phe Asn Arg Ala Lys Gln Ser Thr Asn
865 870 875 880

Ser His Ser Cys Ser His Ser Thr Thr Thr Asp Asn Asn Asp Asn Ile
885 890 895

Ser Asn Ile Tyr Asp Asn His Asn Val Ala Leu Ser Ser Lys Ile Pro
900 905 910

Val Thr Asp Asn Ser Asp Ile Arg Glu Ser Val His Ser Leu His Val
915 920 925

Lys Pro Phe Pro Val Lys Ser Asp Leu Ser Val Asn Pro Glu Ile Ser
930 935 940

His Tyr Thr Met
945

<210> 306

<211> 887
 <212> PRT
 <213> Mesocricetus auratus

<400> 306

Met Leu Ser Arg Leu Phe Arg Met His Gly Leu Phe Val Ala Ser His
 1 5 10 15

Pro Trp Glu Val Ile Val Gly Thr Val Thr Leu Thr Ile Cys Met Met
 20 25 30

Ser Met Asn Met Phe Thr Gly Asn Asn Lys Ile Cys Gly Trp Asn Tyr
 35 40 45

Glu Cys Pro Lys Phe Glu Glu Asp Val Leu Ser Ser Asp Ile Ile Ile
 50 55 60

Leu Thr Ile Thr Arg Cys Ile Ala Ile Leu Tyr Ile Tyr Phe Gln Phe
 65 70 75 80

Gln Asn Leu Arg Gln Leu Gly Ser Lys Tyr Ile Leu Gly Ile Ala Gly
 85 90 95

Leu Phe Thr Ile Phe Ser Ser Phe Val Phe Ser Thr Val Val Ile His
 100 105 110

Phe Leu Asp Lys Glu Leu Thr Gly Leu Asn Glu Ala Leu Pro Phe Phe
 115 120 125

Leu Leu Leu Ile Asp Leu Ser Arg Ala Ser Ala Leu Ala Lys Phe Ala
 130 135 140

Leu Ser Ser Asn Ser Gln Asp Glu Val Arg Glu Asn Ile Ala Arg Gly
 145 150 155 160

Met Ala Ile Leu Gly Pro Thr Phe Thr Leu Asp Ala Leu Val Glu Cys
 165 170 175

Leu Val Ile Gly Val Gly Thr Met Ser Gly Val Arg Gln Leu Glu Ile
 180 185 190

Met Cys Cys Phe Gly Cys Met Ser Val Leu Ala Asn Tyr Phe Val Phe
 195 200 205

Met Thr Phe Phe Pro Ala Cys Val Ser Leu Val Leu Glu Leu Ser Arg
 210 215 220

Glu Ser Arg Glu Gly Arg Pro Ile Trp Gln Leu Ser His Phe Ala Arg
 225 230 235 240

Val Leu Glu Glu Glu Glu Asn Lys Pro Asn Pro Val Thr Gln Arg Val
 245 250 255

Lys Met Ile Met Ser Leu Gly Leu Val Leu Val His Ala His Ser Arg
 260 265 270

Trp Ile Ala Asp Pro Ser Pro Gln Asn Ser Thr Thr Glu His Ser Lys
 275 280 285

Val Ser Leu Gly Leu Asp Glu Asp Val Ser Lys Arg Ile Glu Pro Ser
 290 295 300

Val Ser Leu Trp Gln Phe Tyr Leu Ser Lys Met Ile Ser Met Asp Ile
 305 310 315 320

Glu Gln Val Val Thr Leu Ser Leu Ala Phe Leu Leu Ala Val Lys Tyr
 325 330 335

Ile Phe Phe Glu Gln Ala Glu Thr Glu Ser Thr Leu Ser Leu Lys Asn
 340 345 350

Pro Ile Thr Ser Pro Val Ala Thr Pro Lys Lys Ala Pro Asp Asn Cys
 355 360 365

Cys Arg Arg Glu Pro Val Leu Ser Arg Arg Asn Glu Lys Leu Ser Ser
 370 375 380

Val Glu Glu Glu Pro Gly Val Asn Gln Asp Arg Lys Val Glu Val Ile
 385 390 395 400

Lys Pro Leu Val Ala Glu Thr Glu Ser Thr Ser Arg Ala Thr Phe Val
 405 410 415

Leu Gly Ala Ser Gly Gly Cys Ser Pro Val Ala Leu Gly Thr Gln Glu
 420 425 430

Pro Glu Ile Glu Leu Pro Ser Glu Pro Arg Pro Asn Glu Glu Cys Leu
 435 440 445

Gln Ile Leu Glu Ser Ala Glu Lys Gly Ala Lys Phe Leu Ser Asp Ala
 450 455 460

Glu Ile Ile Gln Leu Val Asn Ala Lys His Ile Pro Ala Tyr Lys Leu
 465 470 475 480

Glu Thr Leu Met Glu Thr His Glu Arg Gly Val Ser Ile Arg Arg Gln
 485 490 495

Leu Leu Ser Thr Lys Leu Pro Glu Pro Ser Ser Leu Gln Tyr Leu Pro
 500 505 510

Tyr Arg Asp Tyr Asn Tyr Ser Leu Val Met Gly Ala Cys Cys Glu Asn
 515 520 525

Val Ile Gly Tyr Met Pro Ile Pro Val Gly Val Ala Gly Pro Leu Cys
 530 535 540

Leu Asp Gly Lys Glu Tyr Gln Val Pro Met Ala Thr Thr Glu Gly Cys
 545 550 555 560

Leu Val Ala Ser Thr Asn Arg Gly Cys Arg Ala Ile Gly Leu Gly Gly
 565 570 575

Gly Ala Ser Ser Arg Val Leu Ala Asp Gly Met Thr Arg Gly Pro Val
 580 585 590

Val Arg Leu Pro Arg Ala Cys Asp Ser Ala Glu Val Lys Ala Trp Leu
 595 600 605

Glu Thr Pro Glu Gly Phe Ala Val Ile Lys Asp Ala Phe Asp Ser Thr
 610 615 620

Ser Arg Phe Ala Arg Leu Gln Lys Leu His Val Thr Met Ala Gly Arg
 625 630 635 640

Asn Leu Tyr Ile Arg Phe Gln Ser Lys Thr Gly Asp Ala Met Gly Met
 645 650 655

Asn Met Ile Ser Lys Gly Thr Glu Lys Ala Leu Val Lys Leu Gln Glu
 660 665 670

Phe Phe Pro Glu Met Gln Ile Leu Ala Val Ser Gly Asn Tyr Cys Thr
 675 680 685

Asp Lys Lys Pro Ala Ala Val Asn Trp Ile Glu Gly Arg Gly Lys Thr
 690 695 700

Val Val Cys Glu Ala Val Ile Pro Ala Arg Val Val Arg Glu Val Leu

705		710		715		720
Lys Thr Thr Thr	Glu Ala Met Ile Asp	Val Asn Ile Asn Lys	Asn Leu			
	725		730			735
Val Gly Ser Ala Met Ala Gly Ser Ile Gly Gly Tyr Asn Ala His Ala						
	740		745			750
Ala Asn Ile Val Thr Ala Ile Tyr Ile Ala Cys Gly Gln Asp Ala Ala						
	755		760			765
Gln Asn Val Gly Ser Ser Asn Cys Ile Thr Leu Met Glu Ala Ser Gly						
	770		775			780
Pro Thr Asn Glu Asp Leu Tyr Ile Ser Cys Thr Met Pro Ser Ile Glu						
	785		790			795
Ile Gly Thr Val Gly Gly Gly Thr Asn Leu Leu Pro Gln Gln Ala Cys						
	805		810			815
Leu Gln Met Leu Gly Val Gln Gly Ala Cys Lys Asp Asn Pro Gly Glu						
	820		825			830
Asn Ala Arg Gln Leu Ala Arg Ile Val Cys Gly Thr Val Met Ala Gly						
	835		840			845
Glu Leu Ser Leu Met Ala Ala Leu Ala Ala Gly His Leu Val Arg Ser						
	850		855			860
His Met Val His Asn Arg Ser Lys Ile Asn Leu Gln Asp Leu Gln Gly						
	865		870			875
Thr Cys Thr Lys Lys Ala Ala						
	885					

<210> 307
 <211> 916
 <212> PRT
 <213> Drosophila melanogaster

<400> 307

Met Ile Gly Pro Leu Phe Arg Ala Thr Gln Phe Cys Ala Ser His Pro														
1			5					10					15	
Trp Glu Val Ile Val Ala Leu Leu Thr Ile Thr Ala Cys Met Leu Asn														
			20					25					30	

Gly Gly Gln Glu Gln Tyr Pro Gly Cys Glu Gln Arg Ile Gly His Ser
 35 40 45

Thr Ala Ser Ala Ala Ala Ala Gly Ser Gly Ser Gly Ala Gly Ser Gly
 50 55 60

Ala Ser Gly Thr Ile Pro Pro Ser Ser Met Gly Gly Ser Ala Thr Ser
 65 70 75 80

Ser Arg His Arg Pro Cys His Gly Trp Ser Gln Ser Cys Asp Gly Leu
 85 90 95

Glu Ala Glu Tyr Asn Ala Ala Asp Val Ile Leu Met Thr Ile Val Arg
 100 105 110

Cys Thr Ala Val Leu Tyr Cys Tyr Tyr Gln Phe Cys Ser Leu His Arg
 115 120 125

Leu Gly Ser Lys Tyr Val Leu Gly Ile Ala Gly Leu Phe Thr Val Phe
 130 135 140

Ser Ser Phe Ile Phe Thr Thr Ala Ile Ile Lys Phe Leu Gly Ser Asp
 145 150 155 160

Ile Ser Glu Leu Lys Asp Ala Leu Phe Phe Leu Leu Leu Val Ile Asp
 165 170 175

Leu Ser Asn Ser Gly Arg Leu Arg Ser Gly Ala Met Gly Ser Asn Gln
 180 185 190

Ala Glu Val Thr Gln Asn Ile Ala Arg Gly Leu Glu Leu Leu Gly Pro
 195 200 205

Ala Ile Ser Leu Asp Thr Ile Val Val Val Leu Leu Val Gly Val Gly
 210 215 220

Thr Leu Ser Gly Val Gln Arg Leu Glu Val Leu Cys Met Phe Ala Val
 225 230 235 240

Leu Ser Val Leu Val Asn Tyr Val Val Phe Met Thr Phe Tyr Pro Ala
 245 250 255

Cys Leu Ser Leu Ile Phe Asp Leu Ser Arg Ser Gly Val Asp Met Ser
 260 265 270

Val Val Arg Glu Lys Ala Lys Gly Ser Leu Pro Leu Lys Ser Leu Thr
275 280 285
Glu Glu Glu Gln Lys Ala Asn Pro Val Leu Gln Arg Val Lys Leu Ile
290 295 300
Met Thr Thr Gly Leu Met Ala Val His Ile Tyr Ser Arg Glu Val Ser
305 310 315 320
Pro Ala Ala Thr Thr Met Val Asp Lys Thr Leu Thr Pro Thr Leu Ser
325 330 335
Leu Asn Val Ser Asn Asn Arg Thr Glu Ser Gly Glu Ile Ala Asp Ile
340 345 350
Ile Ile Lys Trp Leu Thr Met Ser Ala Asp His Ile Val Ile Ser Ile
355 360 365
Val Leu Ile Ala Leu Val Val Lys Phe Ile Cys Phe Asp Asn Arg Asp
370 375 380
Pro Leu Pro Asp Gln Leu Arg Gln Ser Gly Pro Val Ala Ile Glu Ala
385 390 395 400
Lys Ala Ser Gln Thr Thr Pro Ile Asp Glu Glu His Val Glu Gln Glu
405 410 415
Lys Asp Thr Glu Asn Ser Ala Ala Val Arg Thr Leu Leu Phe Thr Ile
420 425 430
Glu Asp Gln Ser Ser Ala Asn Ala Ser Thr Gln Thr Asp Leu Leu Pro
435 440 445
Leu Arg His Arg Leu Val Gly Pro Ile Lys Pro Pro Arg Pro Val Gln
450 455 460
Glu Cys Leu Asp Ile Leu Asn Ser Thr Glu Glu Gly Ser Gly Pro Ala
465 470 475 480
Ala Leu Ser Asp Glu Glu Ile Val Ser Ile Val His Ala Gly Gly Thr
485 490 495
His Cys Pro Leu His Lys Ile Glu Ser Val Leu Asp Asp Pro Glu Arg
500 505 510
Gly Val Arg Ile Arg Arg Gln Ile Ile Gly Ser Arg Ala Lys Met Pro

515		520		525
Val Gly Arg Leu Asp Val Leu Pro Tyr Glu His Phe Asp Tyr Arg Lys				
530		535		540
Val Leu Asn Ala Cys Cys Glu Asn Val Leu Gly Tyr Val Pro Ile Pro				
545		550		555
Val Gly Tyr Ala Gly Pro Leu Leu Leu Asp Gly Glu Thr Tyr Tyr Val				
		565		570
Pro Met Ala Thr Thr Glu Gly Ala Leu Val Ala Ser Thr Asn Arg Gly				
		580		585
Cys Lys Ala Leu Ser Val Arg Gly Val Arg Ser Val Val Glu Asp Val				
		595		600
Gly Met Thr Arg Ala Pro Cys Val Arg Phe Pro Ser Val Ala Arg Ala				
		610		615
Ala Glu Ala Lys Ser Trp Ile Glu Asn Asp Glu Asn Tyr Arg Val Val				
		625		630
Lys Thr Glu Phe Asp Ser Thr Ser Arg Phe Gly Arg Leu Lys Asp Cys				
		645		650
His Ile Ala Met Asp Gly Pro Gln Leu Tyr Ile Arg Phe Val Ala Ile				
		660		665
Thr Gly Asp Arg Met Gly Met Asn Met Val Ser Lys Ala Leu Arg Trp				
		675		680
Pro Phe Ala Glu Phe Thr Leu His Phe Pro Asp Met Gln Ile Ile Ser				
		690		695
Leu Ser Gly Asn Phe Cys Cys Asp Lys Lys Pro Ala Ala Ile Asn Trp				
		705		710
Ile Lys Gly Arg Gly Lys Arg Val Val Thr Glu Cys Thr Ile Ser Ala				
		725		730
Ala Thr Leu Arg Ser Val Leu Lys Thr Asp Ala Lys Thr Leu Val Glu				
		740		745
Cys Asn Lys Leu Lys Asn Met Gly Gly Ser Ala Met Ala Gly Ser Ile				
		755		760

Gly Gly Asn Asn Ala His Ala Ala Asn Met Val Thr Ala Val Phe Leu
 770 775 780

Ala Thr Gly Gln Asp Pro Ala Gln Asn Val Thr Ser Ser Asn Cys Ser
 785 790 795 800

Thr Ala Met Glu Cys Trp Ala Glu Asn Ser Glu Asp Leu Tyr Met Thr
 805 810 815

Cys Thr Met Pro Ser Leu Glu Val Gly Thr Val Gly Gly Gly Thr Gly
 820 825 830

Leu Pro Gly Gln Ser Ala Cys Leu Glu Met Leu Gly Val Arg Gly Ala
 835 840 845

His Ala Thr Arg Pro Gly Asp Asn Ala Lys Lys Leu Ala Gln Ile Val
 850 855 860

Cys Ala Thr Val Met Ala Gly Glu Leu Ser Leu Met Ala Ala Leu Val
 865 870 875 880

Asn Ser Asp Leu Val Lys Ser His Met Arg His Asn Arg Ser Ser Ile
 885 890 895

Ala Val Asn Ser Ala Asn Asn Pro Leu Asn Val Thr Val Ser Ser Cys
 900 905 910

Ser Thr Ile Ser
 915

<210> 308
 <211> 887
 <212> PRT
 <213> Cricetulus griseus

<400> 308

Met Leu Ser Arg Leu Phe Arg Met His Gly Leu Phe Val Ala Ser His
 1 5 10 15

Pro Trp Glu Val Ile Val Gly Thr Val Thr Leu Thr Ile Cys Met Met
 20 25 30

Ser Met Asn Met Phe Thr Gly Asn Asn Lys Ile Cys Gly Trp Asn Tyr
 35 40 45

Glu Cys Pro Lys Phe Glu Glu Asp Val Leu Ser Ser Asp Ile Ile Ile
 50 55 60

Leu Thr Ile Thr Arg Cys Ile Ala Ile Leu Tyr Ile Tyr Phe Gln Phe
 65 70 75 80

Gln Asn Leu Arg Gln Leu Gly Ser Lys Tyr Ile Leu Gly Ile Ala Gly
 85 90 95

Leu Phe Thr Ile Phe Ser Ser Phe Val Phe Ser Thr Val Val Ile His
 100 105 110

Phe Leu Asp Lys Glu Leu Thr Gly Leu Asn Glu Ala Leu Pro Phe Phe
 115 120 125

Leu Leu Leu Ile Asp Leu Ser Arg Ala Ser Ala Leu Ala Lys Phe Ala
 130 135 140

Leu Ser Ser Asn Ser Gln Asp Glu Val Arg Glu Asn Ile Ala Arg Gly
 145 150 155 160

Met Ala Ile Leu Gly Pro Thr Phe Thr Leu Asp Ala Leu Val Glu Cys
 165 170 175

Leu Val Ile Gly Val Gly Thr Met Ser Gly Val Arg Gln Leu Glu Ile
 180 185 190

Met Cys Cys Phe Gly Cys Met Ser Val Leu Ala Asn Tyr Phe Val Phe
 195 200 205

Met Thr Phe Phe Pro Ala Cys Val Ser Leu Val Leu Glu Leu Ser Arg
 210 215 220

Glu Ser Arg Glu Gly Arg Pro Ile Trp Gln Leu Ser His Phe Ala Arg
 225 230 235 240

Val Leu Glu Glu Glu Glu Asn Lys Pro Asn Pro Val Thr Gln Arg Val
 245 250 255

Lys Met Ile Met Ser Leu Gly Leu Val Leu Val His Ala His Ser Arg
 260 265 270

Trp Ile Ala Asp Pro Ser Pro Gln Asn Ser Thr Thr Glu His Ser Lys
 275 280 285

Val Ser Leu Gly Leu Asp Glu Asp Val Ser Lys Arg Ile Glu Pro Ser

290	295	300															
Val	Ser	Leu	Trp	Gln	Phe	Tyr	Leu	Ser	Lys	Met	Ile	Ser	Met	Asp	Ile		
305					310					315					320		
Glu	Gln	Val	Val	Thr	Leu	Ser	Leu	Ala	Phe	Leu	Leu	Ala	Val	Lys	Tyr		
				325					330					335			
Ile	Phe	Phe	Glu	Gln	Ala	Glu	Thr	Glu	Ser	Thr	Leu	Ser	Leu	Lys	Asn		
			340					345						350			
Pro	Ile	Thr	Ser	Pro	Val	Val	Thr	Pro	Lys	Lys	Ala	Pro	Asp	Asn	Cys		
		355					360						365				
Cys	Arg	Arg	Glu	Pro	Leu	Leu	Val	Arg	Arg	Ser	Glu	Lys	Leu	Ser	Ser		
	370					375					380						
Val	Glu	Glu	Glu	Pro	Gly	Val	Ser	Gln	Asp	Arg	Lys	Val	Glu	Val	Ile		
385					390					395					400		
Lys	Pro	Leu	Val	Val	Glu	Thr	Glu	Ser	Ala	Ser	Arg	Ala	Thr	Phe	Val		
				405					410					415			
Leu	Gly	Ala	Ser	Gly	Thr	Ser	Pro	Pro	Val	Ala	Ala	Arg	Thr	Gln	Glu		
			420					425					430				
Leu	Glu	Ile	Glu	Leu	Pro	Ser	Glu	Pro	Arg	Pro	Asn	Glu	Glu	Cys	Leu		
	435						440					445					
Gln	Ile	Leu	Glu	Ser	Ala	Glu	Lys	Gly	Ala	Lys	Phe	Leu	Ser	Asp	Ala		
	450					455					460						
Glu	Ile	Ile	Gln	Leu	Val	Asn	Ala	Lys	His	Ile	Pro	Ala	Tyr	Lys	Leu		
465					470					475					480		
Glu	Thr	Leu	Met	Glu	Thr	His	Glu	Arg	Gly	Val	Ser	Ile	Arg	Arg	Gln		
				485					490					495			
Leu	Leu	Ser	Thr	Lys	Leu	Pro	Glu	Pro	Ser	Ser	Leu	Gln	Tyr	Leu	Pro		
			500					505					510				
Tyr	Arg	Asp	Tyr	Asn	Tyr	Ser	Leu	Val	Met	Gly	Ala	Cys	Cys	Glu	Asn		
	515						520					525					
Val	Ile	Gly	Tyr	Met	Pro	Ile	Pro	Val	Gly	Val	Ala	Gly	Pro	Leu	Cys		
	530					535					540						

Leu Asp Gly Lys Glu Tyr Gln Val Pro Met Ala Thr Thr Glu Gly Cys
 545 550 555 560

Leu Val Ala Ser Thr Asn Arg Gly Cys Arg Ala Ile Gly Leu Gly Gly
 565 570 575

Gly Ala Ser Ser Arg Val Leu Ala Asp Gly Met Thr Arg Gly Pro Val
 580 585 590

Val Arg Leu Pro Arg Ala Cys Asp Ser Ala Glu Val Lys Ala Trp Leu
 595 600 605

Glu Thr Pro Glu Gly Phe Ala Val Ile Lys Asp Ala Phe Asp Ser Thr
 610 615 620

Ser Arg Phe Ala Arg Leu Gln Lys Leu His Val Thr Met Ala Gly Arg
 625 630 635 640

Asn Leu Tyr Ile Arg Phe Gln Ser Lys Thr Gly Asp Ala Met Gly Met
 645 650 655

Asn Met Ile Ser Lys Gly Thr Glu Lys Ala Leu Leu Lys Leu Gln Glu
 660 665 670

Phe Phe Pro Glu Met Gln Ile Leu Ala Val Ser Gly Asn Tyr Cys Thr
 675 680 685

Asp Lys Lys Pro Ala Ala Ile Asn Trp Ile Glu Gly Arg Gly Lys Thr
 690 695 700

Val Val Cys Glu Ala Val Ile Pro Ala Lys Val Val Arg Glu Val Leu
 705 710 715 720

Lys Thr Thr Thr Glu Ala Met Ile Asp Val Asn Ile Asn Lys Asn Leu
 725 730 735

Val Gly Ser Ala Met Ala Gly Ser Ile Gly Gly Tyr Asn Ala His Ala
 740 745 750

Ala Asn Ile Val Thr Ala Ile Tyr Ile Ala Cys Gly Gln Asp Ala Ala
 755 760 765

Gln Asn Val Gly Ser Ser Asn Cys Ile Thr Leu Met Glu Ala Ser Gly
 770 775 780

Pro Thr Asn Glu Asp Leu Tyr Ile Ser Cys Thr Met Pro Ser Ile Glu
785 790 795 800

Ile Gly Thr Val Gly Gly Gly Thr Asn Leu Leu Pro Gln Gln Ala Cys
805 810 815

Leu Gln Met Leu Gly Val Gln Gly Ala Cys Lys Asp Asn Pro Gly Glu
820 825 830

Asn Ala Arg Gln Leu Ala Arg Ile Val Cys Gly Thr Val Met Ala Gly
835 840 845

Glu Leu Ser Leu Met Ala Ala Leu Ala Ala Gly His Leu Val Arg Ser
850 855 860

His Met Val His Asn Arg Ser Lys Ile Asn Leu Gln Asp Leu Gln Gly
865 870 875 880

Thr Cys Thr Lys Lys Ser Ala
885

<210> 309
<211> 1045
<212> PRT
<213> *Saccharomyces cerevisiae*

<400> 309

Met Ser Leu Pro Leu Lys Thr Ile Val His Leu Val Lys Pro Phe Ala
1 5 10 15

Cys Thr Ala Arg Phe Ser Ala Arg Tyr Pro Ile His Val Ile Val Val
20 25 30

Ala Val Leu Leu Ser Ala Ala Ala Tyr Leu Ser Val Thr Gln Ser Tyr
35 40 45

Leu Asn Glu Trp Lys Leu Asp Ser Asn Gln Tyr Ser Thr Tyr Leu Ser
50 55 60

Ile Lys Pro Asp Glu Leu Phe Glu Lys Cys Thr His Tyr Tyr Arg Ser
65 70 75 80

Pro Val Ser Asp Thr Trp Lys Leu Leu Ser Ser Lys Glu Ala Ala Asp
85 90 95

Ile Tyr Thr Pro Phe His Tyr Tyr Leu Ser Thr Ile Ser Phe Gln Ser

100					105					110					
Lys	Asp	Asn	Ser	Thr	Thr	Leu	Pro	Ser	Leu	Asp	Asp	Val	Ile	Tyr	Ser
		115					120					125			
Val	Asp	His	Thr	Arg	Tyr	Leu	Leu	Ser	Glu	Glu	Pro	Lys	Ile	Pro	Thr
		130				135					140				
Glu	Leu	Val	Ser	Glu	Asn	Gly	Thr	Lys	Trp	Arg	Leu	Arg	Asn	Asn	Ser
					150					155					160
Asn	Phe	Ile	Leu	Asp	Leu	His	Asn	Ile	Tyr	Arg	Asn	Met	Val	Lys	Gln
				165					170					175	
Phe	Ser	Asn	Lys	Thr	Ser	Glu	Phe	Asp	Gln	Phe	Asp	Leu	Phe	Ile	Ile
			180					185					190		
Leu	Ala	Ala	Tyr	Leu	Thr	Leu	Phe	Tyr	Thr	Leu	Cys	Cys	Leu	Phe	Asn
		195					200					205			
Asp	Met	Arg	Lys	Ile	Gly	Ser	Lys	Phe	Trp	Leu	Ser	Phe	Ser	Ala	Leu
	210					215					220				
Ser	Asn	Ser	Ala	Cys	Ala	Leu	Tyr	Leu	Ser	Leu	Tyr	Thr	Thr	His	Ser
	225				230					235					240
Leu	Leu	Lys	Lys	Pro	Ala	Ser	Leu	Leu	Ser	Leu	Val	Ile	Gly	Leu	Pro
				245					250					255	
Phe	Ile	Val	Val	Ile	Ile	Gly	Phe	Lys	His	Lys	Val	Arg	Leu	Ala	Ala
			260					265					270		
Phe	Ser	Leu	Gln	Lys	Phe	His	Arg	Ile	Ser	Ile	Asp	Lys	Lys	Ile	Thr
		275					280					285			
Val	Ser	Asn	Ile	Ile	Tyr	Glu	Ala	Met	Phe	Gln	Glu	Gly	Ala	Tyr	Leu
		290				295					300				
Ile	Arg	Asp	Tyr	Leu	Phe	Tyr	Ile	Ser	Ser	Phe	Ile	Gly	Cys	Ala	Ile
	305				310					315					320
Tyr	Ala	Arg	His	Leu	Pro	Gly	Leu	Val	Asn	Phe	Cys	Ile	Leu	Ser	Thr
				325					330					335	
Phe	Met	Leu	Val	Phe	Asp	Leu	Leu	Leu	Ser	Ala	Thr	Phe	Tyr	Ser	Ala
			340				345						350		

Ile Leu Ser Met Lys Leu Glu Ile Asn Ile Ile His Arg Ser Thr Val
 355 360 365

Ile Arg Gln Thr Leu Glu Glu Asp Gly Val Val Pro Thr Thr Ala Asp
 370 375 380

Ile Ile Tyr Lys Asp Glu Thr Ala Ser Glu Pro His Phe Leu Arg Ser
 385 390 395 400

Asn Val Ala Ile Ile Leu Gly Lys Ala Ser Val Ile Gly Leu Leu Leu
 405 410 415

Leu Ile Asn Leu Tyr Val Phe Thr Asp Lys Leu Asn Ala Thr Ile Leu
 420 425 430

Asn Thr Val Tyr Phe Asp Ser Thr Ile Tyr Ser Leu Pro Asn Phe Ile
 435 440 445

Asn Tyr Lys Asp Ile Gly Asn Leu Ser Asn Gln Val Ile Ile Ser Val
 450 455 460

Leu Pro Lys Gln Tyr Tyr Thr Pro Leu Lys Lys Tyr His Gln Ile Glu
 465 470 475 480

Asp Ser Val Leu Leu Ile Ile Asp Ser Val Ser Asn Ala Ile Arg Asp
 485 490 495

Gln Phe Ile Ser Lys Leu Leu Phe Phe Ala Phe Ala Val Ser Ile Ser
 500 505 510

Ile Asn Val Tyr Leu Leu Asn Ala Ala Lys Ile His Thr Gly Tyr Met
 515 520 525

Asn Phe Gln Pro Gln Ser Asn Lys Ile Asp Asp Leu Val Val Gln Gln
 530 535 540

Lys Ser Ala Thr Ile Glu Phe Ser Glu Thr Arg Ser Met Pro Ala Ser
 545 550 555 560

Ser Gly Leu Glu Thr Pro Val Thr Ala Lys Asp Ile Ile Ile Ser Glu
 565 570 575

Glu Ile Gln Asn Asn Glu Cys Val Tyr Ala Leu Ser Ser Gln Asp Glu
 580 585 590

Pro Ile Arg Pro Leu Ser Asn Leu Val Glu Leu Met Glu Lys Glu Gln
595 600 605

Leu Lys Asn Met Asn Asn Thr Glu Val Ser Asn Leu Val Val Asn Gly
610 615 620

Lys Leu Pro Leu Tyr Ser Leu Glu Lys Lys Leu Glu Asp Thr Thr Arg
625 630 635 640

Ala Val Leu Val Arg Arg Lys Ala Leu Ser Thr Leu Ala Glu Ser Pro
645 650 655

Ile Leu Val Ser Glu Lys Leu Pro Phe Arg Asn Tyr Asp Tyr Asp Arg
660 665 670

Val Phe Gly Ala Cys Cys Glu Asn Val Ile Gly Tyr Met Pro Ile Pro
675 680 685

Val Gly Val Ile Gly Pro Leu Ile Ile Asp Gly Thr Ser Tyr His Ile
690 695 700

Pro Met Ala Thr Thr Glu Gly Cys Leu Val Ala Ser Ala Met Arg Gly
705 710 715 720

Cys Lys Ala Ile Asn Ala Gly Gly Gly Ala Thr Thr Val Leu Thr Lys
725 730 735

Asp Gly Met Thr Arg Gly Pro Val Val Arg Phe Pro Thr Leu Ile Arg
740 745 750

Ser Gly Ala Cys Lys Ile Trp Leu Asp Ser Glu Glu Gly Gln Asn Ser
755 760 765

Ile Lys Lys Ala Phe Asn Ser Thr Ser Arg Phe Ala Arg Leu Gln His
770 775 780

Ile Gln Thr Cys Leu Ala Gly Asp Leu Leu Phe Met Arg Phe Arg Thr
785 790 795 800

Thr Thr Gly Asp Ala Met Gly Met Asn Met Ile Ser Lys Gly Val Glu
805 810 815

Tyr Ser Leu Lys Gln Met Val Glu Glu Tyr Gly Trp Glu Asp Met Glu
820 825 830

Val Val Ser Val Ser Gly Asn Tyr Cys Thr Asp Lys Lys Pro Ala Ala
835 840 845

Ile Asn Trp Ile Glu Gly Arg Gly Lys Ser Val Val Ala Glu Ala Thr
850 855 860

Ile Pro Gly Asp Val Val Lys Ser Val Leu Lys Ser Asp Val Ser Ala
865 870 875 880

Leu Val Glu Leu Asn Ile Ser Lys Asn Leu Val Gly Ser Ala Met Ala
885 890 895

Gly Ser Val Gly Gly Phe Asn Ala His Ala Ala Asn Leu Val Thr Ala
900 905 910

Leu Phe Leu Ala Leu Gly Gln Asp Pro Ala Gln Asn Val Glu Ser Ser
915 920 925

Asn Cys Ile Thr Leu Met Lys Glu Val Asp Gly Asp Leu Arg Ile Ser
930 935 940

Val Ser Met Pro Ser Ile Glu Val Gly Thr Ile Gly Gly Gly Thr Val
945 950 955 960

Leu Glu Pro Gln Gly Ala Met Leu Asp Leu Leu Gly Val Arg Gly Pro
965 970 975

His Pro Thr Glu Pro Gly Ala Asn Ala Arg Gln Leu Ala Arg Ile Ile
980 985 990

Ala Cys Ala Val Leu Ala Gly Glu Leu Ser Leu Cys Ser Ala Leu Ala
995 1000 1005

Ala Gly His Leu Val Gln Ser His Met Thr His Asn Arg Lys Thr
1010 1015 1020

Asn Lys Ala Asn Glu Leu Pro Gln Pro Ser Asn Lys Gly Pro Pro
1025 1030 1035

Cys Lys Thr Ser Ala Leu Leu
1040 1045

<210> 310
<211> 210
<212> PRT
<213> Hevea brasiliensis

<400> 310

Leu Glu Ser Asp Phe Ala Asp Met Asp Val Ile Gly Ile Ser Gly Asn
1 5 10 15

Phe Cys Ser Asp Lys Lys Pro Ala Ala Val Asn Trp Ile Glu Gly Arg
20 25 30

Gly Lys Ser Val Val Cys Glu Ala Ile Ile Lys Glu Glu Val Val Lys
35 40 45

Lys Val Leu Lys Thr Asp Val Ala Leu Leu Val Glu Leu Asn Met Leu
50 55 60

Lys Asn Leu Ala Gly Ser Ala Val Ala Gly Ala Leu Gly Gly Phe Asn
65 70 75 80

Ala His Ala Gly Asn Ile Val Ser Ala Ile Phe Ile Ala Thr Gly Gln
85 90 95

Asp Pro Ala Gln Asn Val Glu Ser Ser His Cys Ile Thr Met Met Glu
100 105 110

Ala Val Asn Asp Gly Lys Asp Leu His Ile Ser Val Thr Leu Pro Ser
115 120 125

Ile Glu Val Gly Thr Val Gly Gly Gly Thr Gln Leu Ala Ser Gln Ser
130 135 140

Ala Cys Leu Asn Leu Leu Gly Val Met Gly Ala Cys Lys Glu Ser Pro
145 150 155 160

Gly Ser Tyr Ser Arg Leu Leu Ala Thr Ile Val Ala Gly Ser Val Leu
165 170 175

Ala Gly Glu Leu Ser Leu Met Ser Ala Ile Ala Ala Gly Gln Leu Val
180 185 190

Lys Ser His Met Lys Tyr Asn Arg Ser Ser Lys Asp Val Ser Lys Ala
195 200 205

Ala Ser
210

<210> 311
<211> 1054
<212> PRT

<213> *Saccharomyces cerevisiae*

<400> 311

Met Pro Pro Leu Phe Lys Gly Leu Lys Gln Met Ala Lys Pro Ile Ala
1 5 10 15

Tyr Val Ser Arg Phe Ser Ala Lys Arg Pro Ile His Ile Ile Leu Phe
20 25 30

Ser Leu Ile Ile Ser Ala Phe Ala Tyr Leu Ser Val Ile Gln Tyr Tyr
35 40 45

Phe Asn Gly Trp Gln Leu Asp Ser Asn Ser Val Phe Glu Thr Ala Pro
50 55 60

Asn Lys Asp Ser Asn Thr Leu Phe Gln Glu Cys Ser His Tyr Tyr Arg
65 70 75 80

Asp Ser Ser Leu Asp Gly Trp Val Ser Ile Thr Ala His Glu Ala Ser
85 90 95

Glu Leu Pro Ala Pro His His Tyr Tyr Leu Leu Asn Leu Asn Phe Asn
100 105 110

Ser Pro Asn Glu Thr Asp Ser Ile Pro Glu Leu Ala Asn Thr Val Phe
115 120 125

Glu Lys Asp Asn Thr Lys Tyr Ile Leu Gln Glu Asp Leu Ser Val Ser
130 135 140

Lys Glu Ile Ser Ser Thr Asp Gly Thr Lys Trp Arg Leu Arg Ser Asp
145 150 155 160

Arg Lys Ser Leu Phe Asp Val Lys Thr Leu Ala Tyr Ser Leu Tyr Asp
165 170 175

Val Phe Ser Glu Asn Val Thr Gln Ala Asp Pro Phe Asp Val Leu Ile
180 185 190

Met Val Thr Ala Tyr Leu Met Met Phe Tyr Thr Ile Phe Gly Leu Phe
195 200 205

Asn Asp Met Arg Lys Thr Gly Ser Asn Phe Trp Leu Ser Ala Ser Thr
210 215 220

Val Val Asn Ser Ala Ser Ser Leu Phe Leu Ala Leu Tyr Val Thr Gln

225		230		235		240
Cys Ile Leu Gly Lys Glu Val Ser Ala Leu Thr Leu Phe Glu Gly Leu	245	250	255			
Pro Phe Ile Val Val Val Val Gly Phe Lys His Lys Ile Lys Ile Ala	260	265	270			
Gln Tyr Ala Leu Glu Lys Phe Glu Arg Val Gly Leu Ser Lys Arg Ile	275	280	285			
Thr Thr Asp Glu Ile Val Phe Glu Ser Val Ser Glu Glu Gly Gly Arg	290	295	300			
Leu Ile Gln Asp His Leu Leu Cys Ile Phe Ala Phe Ile Gly Cys Ser	305	310	315	320		
Met Tyr Ala His Gln Leu Lys Thr Leu Thr Asn Phe Cys Ile Leu Ser	325	330	335			
Ala Phe Ile Leu Ile Phe Glu Leu Ile Leu Thr Pro Thr Phe Tyr Ser	340	345	350			
Ala Ile Leu Ala Leu Arg Leu Glu Met Asn Val Ile His Arg Ser Thr	355	360	365			
Ile Ile Lys Gln Thr Leu Glu Glu Asp Gly Val Val Pro Ser Thr Ala	370	375	380			
Arg Ile Ile Ser Lys Ala Glu Lys Lys Ser Val Ser Ser Phe Leu Asn	385	390	395	400		
Leu Ser Val Val Val Ile Ile Met Lys Leu Ser Val Ile Leu Leu Phe	405	410	415			
Val Phe Ile Asn Phe Tyr Asn Phe Gly Ala Asn Trp Val Asn Asp Ala	420	425	430			
Phe Asn Ser Leu Tyr Phe Asp Lys Glu Arg Val Ser Leu Pro Asp Phe	435	440	445			
Ile Thr Ser Asn Ala Ser Glu Asn Phe Lys Glu Gln Ala Ile Val Ser	450	455	460			
Val Thr Pro Leu Leu Tyr Tyr Lys Pro Ile Lys Ser Tyr Gln Arg Ile	465	470	475	480		

Glu Asp Met Val Leu Leu Leu Leu Arg Asn Val Ser Val Ala Ile Arg
485 490 495

Asp Arg Phe Val Ser Lys Leu Val Leu Ser Ala Leu Val Cys Ser Ala
500 505 510

Val Ile Asn Val Tyr Leu Leu Asn Ala Ala Arg Ile His Thr Ser Tyr
515 520 525

Thr Ala Asp Gln Leu Val Lys Thr Glu Val Thr Lys Lys Ser Phe Thr
530 535 540

Ala Pro Val Gln Lys Ala Ser Thr Pro Val Leu Thr Asn Lys Thr Val
545 550 555 560

Ile Ser Gly Ser Lys Val Lys Ser Leu Ser Ser Ala Gln Ser Ser Ser
565 570 575

Ser Gly Pro Ser Ser Ser Ser Glu Glu Asp Asp Ser Arg Asp Ile Glu
580 585 590

Ser Leu Asp Lys Lys Ile Arg Pro Leu Glu Glu Leu Glu Ala Leu Leu
595 600 605

Ser Ser Gly Asn Thr Lys Gln Leu Lys Asn Lys Glu Val Ala Ala Leu
610 615 620

Val Ile His Gly Lys Leu Pro Leu Tyr Ala Leu Glu Lys Lys Leu Gly
625 630 635 640

Asp Thr Thr Arg Ala Val Ala Val Arg Arg Lys Ala Leu Ser Ile Leu
645 650 655

Ala Glu Ala Pro Val Leu Ala Ser Asp Arg Leu Pro Tyr Lys Asn Tyr
660 665 670

Asp Tyr Asp Arg Val Phe Gly Ala Cys Cys Glu Asn Val Ile Gly Tyr
675 680 685

Met Pro Leu Pro Val Gly Val Ile Gly Pro Leu Val Ile Asp Gly Thr
690 695 700

Ser Tyr His Ile Pro Met Ala Thr Thr Glu Gly Cys Leu Val Ala Ser
705 710 715 720

Ala Met Arg Gly Cys Lys Ala Ile Asn Ala Gly Gly Gly Ala Thr Thr
725 730 735

Val Leu Thr Lys Asp Gly Met Thr Arg Gly Pro Val Val Arg Phe Pro
740 745 750

Thr Leu Lys Arg Ser Gly Ala Cys Lys Ile Trp Leu Asp Ser Glu Glu
755 760 765

Gly Gln Asn Ala Ile Lys Lys Ala Phe Asn Ser Thr Ser Arg Phe Ala
770 775 780

Arg Leu Gln His Ile Gln Thr Cys Leu Ala Gly Asp Leu Leu Phe Met
785 790 795 800

Arg Phe Arg Thr Thr Thr Gly Asp Ala Met Gly Met Asn Met Ile Ser
805 810 815

Lys Gly Val Glu Tyr Ser Leu Lys Gln Met Val Glu Glu Tyr Gly Trp
820 825 830

Glu Asp Met Glu Val Val Ser Val Ser Gly Asn Tyr Cys Thr Asp Lys
835 840 845

Lys Pro Ala Ala Ile Asn Trp Ile Glu Gly Arg Gly Lys Ser Val Val
850 855 860

Ala Glu Ala Thr Ile Pro Gly Asp Val Val Arg Lys Val Leu Lys Ser
865 870 875 880

Asp Val Ser Ala Leu Val Glu Leu Asn Ile Ala Lys Asn Leu Val Gly
885 890 895

Ser Ala Met Ala Gly Ser Val Gly Gly Phe Asn Ala His Ala Ala Asn
900 905 910

Leu Val Thr Ala Val Phe Leu Ala Leu Gly Gln Asp Pro Ala Gln Asn
915 920 925

Val Glu Ser Ser Asn Cys Ile Thr Leu Met Lys Glu Val Asp Gly Asp
930 935 940

Leu Arg Ile Ser Val Ser Met Pro Ser Ile Glu Val Gly Thr Ile Gly
945 950 955 960

Gly Gly Thr Val Leu Glu Pro Gln Gly Ala Met Leu Asp Leu Leu Gly
 965 970 975

Val Arg Gly Pro His Ala Thr Ala Pro Gly Thr Asn Ala Arg Gln Leu
 980 985 990

Ala Arg Ile Val Ala Cys Ala Val Leu Ala Gly Glu Leu Ser Leu Cys
 995 1000 1005

Ala Ala Leu Ala Ala Gly His Leu Val Gln Ser His Met Thr His
 1010 1015 1020

Asn Arg Lys Pro Ala Glu Pro Thr Lys Pro Asn Asn Leu Asp Ala
 1025 1030 1035

Thr Asp Ile Asn Arg Leu Lys Asp Gly Ser Val Thr Cys Ile Lys
 1040 1045 1050

Ser

<210> 312
 <211> 575
 <212> PRT
 <213> Hevea brasiliensis

<400> 312

Met Asp Thr Thr Gly Arg Leu His His Arg Lys His Ala Thr Pro Val
 1 5 10 15

Glu Asp Arg Ser Pro Thr Thr Pro Lys Ala Ser Asp Ala Leu Pro Leu
 20 25 30

Pro Leu Tyr Leu Thr Asn Ala Val Phe Phe Thr Leu Phe Phe Ser Val
 35 40 45

Ala Tyr Tyr Leu Leu His Arg Trp Arg Asp Lys Ile Arg Asn Ser Thr
 50 55 60

Pro Leu His Ile Val Thr Leu Ser Glu Ile Val Ala Ile Val Ser Leu
 65 70 75 80

Ile Ala Ser Phe Ile Tyr Leu Leu Gly Phe Phe Gly Ile Asp Phe Val
 85 90 95

Gln Ser Phe Ile Ala Arg Ala Ser His Asp Val Trp Asp Leu Glu Asp
 100 105 110

Thr Asp Pro Asn Tyr Leu Ile Asp Glu Asp His Arg Leu Val Thr Cys
 115 120 125

Pro Pro Ala Asn Ile Ser Thr Lys Thr Thr Ile Ile Ala Ala Pro Thr
 130 135 140

Lys Leu Pro Thr Ser Glu Pro Leu Ile Ala Pro Leu Val Ser Glu Glu
 145 150 155 160

Asp Glu Met Ile Val Asn Ser Val Val Asp Gly Lys Ile Pro Ser Tyr
 165 170 175

Ser Leu Glu Ser Lys Leu Gly Asp Cys Lys Arg Ala Ala Ala Ile Arg
 180 185 190

Arg Glu Ala Leu Gln Arg Met Thr Arg Arg Ser Leu Glu Gly Leu Pro
 195 200 205

Val Glu Gly Phe Asp Tyr Glu Ser Ile Leu Gly Gln Cys Cys Glu Met
 210 215 220

Pro Val Gly Tyr Val Gln Ile Pro Val Gly Ile Ala Gly Pro Leu Leu
 225 230 235 240

Leu Asn Gly Arg Glu Tyr Ser Val Pro Met Ala Thr Thr Glu Gly Cys
 245 250 255

Leu Val Ala Ser Thr Asn Arg Gly Cys Lys Ala Ile Tyr Leu Ser Gly
 260 265 270

Gly Ala Thr Ser Val Leu Leu Lys Asp Gly Met Thr Arg Ala Pro Val
 275 280 285

Val Arg Phe Ala Ser Ala Thr Arg Ala Ala Glu Leu Lys Phe Phe Leu
 290 295 300

Glu Asp Pro Asp Asn Phe Asp Thr Leu Ala Val Val Phe Asn Lys Ser
 305 310 315 320

Ser Arg Phe Ala Arg Leu Gln Gly Ile Lys Cys Ser Ile Ala Gly Lys
 325 330 335

Asn Leu Tyr Ile Arg Phe Ser Cys Ser Thr Gly Asp Ala Met Gly Met
 340 345 350

Asn Met Val Ser Lys Gly Val Gln Asn Val Leu Glu Phe Leu Gln Ser
 355 360 365

Asp Phe Ser Asp Met Asp Val Ile Gly Ile Ser Gly Asn Phe Cys Ser
 370 375 380

Asp Lys Lys Pro Ala Ala Val Asn Trp Ile Glu Gly Arg Gly Lys Ser
 385 390 395 400

Val Val Cys Glu Ala Ile Ile Lys Glu Glu Val Val Lys Lys Val Leu
 405 410 415

Lys Thr Asn Val Ala Ser Leu Val Glu Leu Asn Met Leu Lys Asn Leu
 420 425 430

Ala Gly Ser Ala Val Ala Gly Ala Leu Gly Gly Phe Asn Ala His Ala
 435 440 445

Gly Asn Ile Val Ser Ala Ile Phe Ile Ala Thr Gly Gln Asp Pro Ala
 450 455 460

Gln Asn Val Glu Ser Ser His Cys Ile Thr Met Met Glu Ala Val Asn
 465 470 475 480

Asp Gly Lys Asp Leu His Ile Ser Val Thr Met Pro Ser Ile Glu Val
 485 490 495

Gly Thr Val Gly Gly Gly Thr Gln Leu Ala Ser Gln Ser Ala Cys Leu
 500 505 510

Asn Leu Leu Gly Val Lys Gly Ala Asn Lys Glu Ser Pro Gly Ser Asn
 515 520 525

Ser Arg Leu Leu Ala Ala Ile Val Ala Gly Ser Val Leu Ala Gly Glu
 530 535 540

Leu Ser Leu Met Ser Ala Ile Ala Ala Gly Gln Leu Val Lys Ser His
 545 550 555 560

Met Lys Tyr Asn Arg Ser Ser Lys Asp Met Ser Lys Ala Ala Ser
 565 570 575

<210> 313
 <211> 520
 <212> PRT
 <213> Rattus norvegicus

<400> 313

Met Pro Gly Ser Leu Pro Leu Asn Ala Glu Ala Cys Trp Pro Lys Asp
1 5 10 15

Val Gly Ile Val Ala Leu Glu Ile Tyr Phe Pro Ser Gln Tyr Val Asp
20 25 30

Gln Ala Glu Leu Glu Lys Tyr Asp Gly Val Asp Ala Gly Lys Tyr Thr
35 40 45

Ile Gly Leu Gly Gln Ala Arg Met Gly Phe Cys Thr Asp Arg Glu Asp
50 55 60

Ile Asn Ser Leu Cys Leu Thr Val Val Gln Lys Leu Met Glu Arg Asn
65 70 75 80

Ser Leu Ser Tyr Asp Cys Ile Gly Arg Leu Glu Val Gly Thr Glu Thr
85 90 95

Ile Ile Asp Lys Ser Lys Ser Val Lys Ser Asn Leu Met Gln Leu Phe
100 105 110

Glu Glu Ser Gly Asn Thr Asp Ile Glu Gly Ile Asp Thr Thr Asn Ala
115 120 125

Cys Tyr Gly Gly Thr Ala Ala Val Phe Asn Ala Val Asn Trp Ile Glu
130 135 140

Ser Ser Ser Trp Asp Gly Arg Tyr Ala Leu Val Val Ala Gly Asp Ile
145 150 155 160

Ala Ile Tyr Ala Ser Gly Asn Ala Arg Pro Thr Gly Gly Val Gly Ala
165 170 175

Val Ala Leu Leu Ile Gly Pro Asn Ala Pro Val Ile Phe Asp Arg Gly
180 185 190

Leu Arg Gly Thr His Met Gln His Ala Tyr Asp Phe Tyr Lys Pro Asp
195 200 205

Met Leu Ser Glu Tyr Pro Val Val Asp Gly Lys Leu Ser Ile Gln Cys
210 215 220

Tyr Leu Ser Ala Leu Asp Arg Cys Tyr Ser Val Tyr Arg Lys Lys Ile
225 230 235 240

Arg Ala Gln Trp Gln Lys Glu Gly Lys Asp Lys Asp Phe Thr Leu Asn
245 250 255

Asp Phe Gly Phe Met Ile Phe His Ser Pro Tyr Cys Lys Leu Val Gln
260 265 270

Lys Ser Leu Ala Arg Met Phe Leu Asn Asp Phe Leu Asn Asp Gln Asn
275 280 285

Arg Asp Lys Asn Ser Ile Tyr Ser Gly Leu Glu Ala Phe Gly Asp Val
290 295 300

Lys Leu Glu Asp Thr Tyr Phe Asp Arg Asp Val Glu Lys Ala Phe Met
305 310 315 320

Lys Ala Ser Ala Glu Leu Phe Asn Gln Lys Thr Lys Ala Ser Leu Leu
325 330 335

Val Ser Asn Gln Asn Gly Asn Met Tyr Thr Ser Ser Val Tyr Gly Ser
340 345 350

Leu Ala Ser Val Leu Ala Gln Tyr Ser Pro Gln Gln Leu Ala Gly Lys
355 360 365

Arg Ile Gly Val Phe Ser Tyr Gly Ser Gly Leu Ala Ala Thr Leu Tyr
370 375 380

Ser Leu Lys Val Thr Gln Asp Ala Thr Pro Gly Ser Ala Leu Asp Lys
385 390 395 400

Ile Thr Ala Ser Leu Cys Asp Leu Lys Ser Arg Leu Asp Ser Arg Thr
405 410 415

Cys Val Ala Pro Asp Val Phe Ala Glu Asn Met Lys Leu Arg Glu Asp
420 425 430

Thr His His Leu Ala Asn Tyr Ile Pro Gln Cys Ser Ile Asp Ser Leu
435 440 445

Phe Glu Gly Thr Trp Tyr Leu Val Arg Val Asp Glu Lys His Arg Arg
450 455 460

Thr Tyr Ala Arg Arg Pro Ser Thr Asn Asp His Ser Leu Asp Glu Gly
465 470 475 480

Val Gly Leu Val His Ser Asn Thr Ala Thr Glu His Ile Pro Ser Pro
485 490 495

Ala Lys Lys Val Pro Arg Leu Pro Ala Thr Ser Gly Glu Pro Glu Ser
500 505 510

Ala Val Ile Ser Asn Gly Glu His
515 520

<210> 314
<211> 520
<212> PRT
<213> Cricetulus griseus

<400> 314

Met Pro Gly Ser Leu Pro Leu Asn Ala Glu Ala Cys Trp Pro Lys Asp
1 5 10 15

Val Gly Ile Val Ala Leu Glu Ile Tyr Phe Pro Ser Gln Tyr Val Asp
20 25 30

Gln Ala Glu Leu Glu Lys Tyr Asp Gly Val Asp Ala Gly Lys Tyr Thr
35 40 45

Ile Gly Leu Gly Gln Ala Arg Met Gly Phe Cys Thr Asp Arg Glu Asp
50 55 60

Ile Asn Ser Leu Cys Leu Thr Val Val Gln Asn Leu Met Glu Arg Asn
65 70 75 80

Ser Leu Ser Tyr Asp Cys Ile Gly Arg Leu Glu Val Gly Thr Glu Thr
85 90 95

Ile Ile Asp Lys Ser Lys Ser Val Lys Ser Asn Leu Met Gln Leu Phe
100 105 110

Glu Glu Ser Gly Asn Thr Asp Ile Glu Gly Ile Asp Thr Thr Asn Ala
115 120 125

Cys Tyr Gly Gly Thr Ala Ala Val Phe Asn Ala Val Asn Trp Ile Glu
130 135 140

Ser Ser Ser Trp Asp Gly Arg Tyr Ala Leu Val Val Ala Gly Asp Ile
145 150 155 160

Ala Ile Tyr Ala Thr Gly Asn Ala Arg Pro Thr Gly Gly Val Gly Ala

	165		170		175										
Val	Ala	Leu	Leu	Ile	Gly	Pro	Asn	Ala	Pro	Leu	Ile	Phe	Asp	Arg	Gly
		180						185					190		
Leu	Arg	Gly	Thr	His	Met	Gln	His	Ala	Tyr	Asp	Phe	Tyr	Lys	Pro	Asp
		195					200					205			
Met	Leu	Ser	Glu	Tyr	Pro	Ile	Val	Asp	Gly	Lys	Leu	Ser	Ile	Gln	Cys
	210					215					220				
Tyr	Leu	Ser	Ala	Leu	Asp	Arg	Cys	Tyr	Ser	Val	Tyr	Arg	Lys	Lys	Ile
225					230					235					240
Arg	Ala	Gln	Trp	Gln	Lys	Glu	Gly	Asn	Asp	Asn	Asp	Phe	Thr	Leu	Asn
				245					250					255	
Asp	Phe	Gly	Phe	Met	Ile	Ser	His	Ser	Pro	Tyr	Cys	Lys	Leu	Val	Gln
			260					265					270		
Lys	Ser	Leu	Ala	Arg	Met	Phe	Leu	Asn	Asp	Phe	Leu	Asn	Asp	Gln	Asn
		275					280					285			
Arg	Asp	Lys	Asn	Ser	Ile	Tyr	Ser	Gly	Leu	Glu	Ala	Phe	Gly	Asp	Val
	290					295					300				
Lys	Leu	Glu	Asp	Thr	Tyr	Phe	Asp	Arg	Asp	Val	Glu	Lys	Ala	Phe	Met
305					310					315					320
Lys	Ala	Ser	Ser	Glu	Leu	Phe	Asn	Gln	Lys	Thr	Lys	Ala	Ser	Leu	Leu
				325					330					335	
Val	Ser	Asn	Gln	Asn	Gly	Asn	Met	Tyr	Thr	Ser	Ser	Val	Tyr	Gly	Ser
			340					345					350		
Leu	Ala	Ser	Val	Leu	Ala	Gln	Tyr	Ser	Pro	Gln	Gln	Leu	Ala	Gly	Lys
		355					360					365			
Arg	Ile	Gly	Val	Phe	Ser	Tyr	Gly	Ser	Gly	Leu	Ala	Ala	Thr	Leu	Tyr
	370					375					380				
Ser	Leu	Lys	Val	Thr	Gln	Asp	Ala	Thr	Pro	Gly	Ser	Ala	Leu	Asp	Lys
385					390					395					400
Val	Thr	Ala	Ser	Leu	Cys	Asp	Leu	Lys	Ser	Arg	Leu	Asp	Ser	Arg	Thr
				405					410					415	

Cys Val Ala Pro Asp Val Phe Ala Glu Asn Met Lys Leu Arg Glu Asp
420 425 430

Thr His His Leu Ala Asn Tyr Ile Pro Gln Cys Ser Ile Asp Ser Leu
435 440 445

Phe Glu Gly Thr Trp Tyr Leu Val Arg Val Asp Glu Lys His Arg Arg
450 455 460

Thr Tyr Ala Arg Arg Pro Ser Thr Asn Asp His Asn Leu Gly Asp Gly
465 470 475 480

Val Gly Leu Val His Ser Asn Thr Ala Thr Glu His Ile Pro Ser Pro
485 490 495

Ala Lys Lys Val Pro Arg Leu Pro Ala Thr Ala Ala Glu Ser Glu Ser
500 505 510

Ala Val Ile Ser Asn Gly Glu His
515 520

<210> 315
<211> 522
<212> PRT
<213> Gallus gallus

<400> 315

Met Pro Gly Ser Leu Pro Val Asn Thr Glu Ser Cys Trp Pro Lys Asp
1 5 10 15

Val Gly Ile Val Ala Leu Glu Ile Tyr Phe Pro Ser Gln Tyr Val Asp
20 25 30

Gln Thr Glu Leu Glu Lys Tyr Asp Gly Val Asp Ala Gly Lys Tyr Thr
35 40 45

Ile Gly Leu Gly Gln Ser Lys Met Gly Phe Cys Ser Asp Arg Glu Asp
50 55 60

Ile Asn Ser Leu Cys Leu Thr Val Val Gln Lys Leu Met Glu Arg Asn
65 70 75 80

Ser Leu Ser Tyr Asp Cys Ile Gly Arg Leu Glu Val Gly Thr Glu Thr
85 90 95

Ile Ile Asp Lys Ser Lys Ser Val Lys Thr Val Leu Met Gln Leu Phe
 100 105 110
 Glu Glu Ser Gly Asn Thr Asp Val Glu Gly Ile Asp Thr Thr Asn Ala
 115 120 125
 Cys Tyr Gly Gly Thr Ala Ala Leu Phe Asn Ala Ile Asn Trp Ile Glu
 130 135 140
 Ser Ser Ser Trp Asp Gly Arg Tyr Ala Leu Val Val Ala Gly Asp Ile
 145 150 155 160
 Ala Val Tyr Ala Thr Gly Asn Ala Arg Pro Thr Gly Gly Ala Gly Ala
 165 170 175
 Val Ala Met Leu Val Gly Ser Asn Ala Pro Leu Ile Phe Glu Arg Gly
 180 185 190
 Leu Arg Gly Thr His Met Gln His Ala Tyr Asp Phe Tyr Lys Pro Asp
 195 200 205
 Met Val Ser Glu Tyr Pro Val Val Asp Gly Lys Leu Ser Ile Gln Cys
 210 215 220
 Tyr Leu Ser Ala Leu Asp Arg Cys Tyr Ser Val Tyr Arg Asn Lys Ile
 225 230 235 240
 His Ala Gln Trp Gln Lys Glu Gly Thr Asp Arg Gly Phe Thr Leu Asn
 245 250 255
 Asp Phe Gly Phe Met Ile Phe His Ser Pro Tyr Cys Lys Leu Val Gln
 260 265 270
 Lys Ser Val Ala Arg Leu Leu Leu Asn Asp Phe Leu Ser Asp Gln Asn
 275 280 285
 Ala Glu Thr Ala Asn Gly Val Phe Ser Gly Leu Glu Ala Phe Arg Asp
 290 295 300
 Val Lys Leu Glu Asp Thr Tyr Phe Asp Arg Asp Val Glu Lys Ala Phe
 305 310 315 320
 Met Lys Ala Ser Ala Glu Leu Phe Asn Gln Lys Thr Lys Ala Ser Leu
 325 330 335
 Leu Val Ser Asn Gln Asn Gly Asn Met Tyr Thr Pro Ser Val Tyr Gly

340	345	350
Cys Leu Ala Ser Leu Leu Ala Gln Tyr Ser Pro Glu His Leu Ala Gly		
355	360	365
Gln Arg Ile Ser Glu Phe Ser Tyr Gly Ser Gly Phe Ala Ala Thr Leu		
370	375	380
Tyr Ser Ile Arg Val Thr Gln Asp Ala Thr Pro Gly Ser Ala Leu Asp		
385	390	395
Lys Ile Thr Ala Ser Leu Ser Asp Leu Lys Ala Arg Leu Asp Ser Arg		
405	410	415
Lys Cys Ile Ala Pro Asp Val Phe Ala Glu Asn Met Lys Ile Arg Gln		
420	425	430
Glu Thr His His Leu Ala Asn Tyr Ile Pro Gln Cys Ser Val Glu Asp		
435	440	445
Leu Phe Glu Gly Thr Trp Tyr Leu Val Arg Val Asp Glu Lys His Arg		
450	455	460
Arg Thr Tyr Ala Arg Arg Pro Val Met Gly Asp Gly Pro Leu Glu Ala		
465	470	475
Gly Val Glu Val Val His Pro Gly Ile Val His Glu His Ile Pro Ser		
485	490	495
Pro Ala Lys Lys Val Pro Arg Ile Pro Ala Thr Thr Glu Ser Glu Gly		
500	505	510
Val Thr Val Ala Ile Ser Asn Gly Val His		
515	520	
<210> 316		
<211> 508		
<212> PRT		
<213> Rattus norvegicus		
<400> 316		
Met Gln Arg Leu Leu Ala Pro Ala Arg Arg Val Leu Gln Val Lys Arg		
1	5	10
Val Met Gln Glu Ser Ser Leu Ser Pro Ala His Leu Leu Pro Ala Ala		
20	25	30

Gln Gln Arg Phe Ser Thr Ile Pro Pro Ala Pro Leu Ala Lys Thr Asp
35 40 45

Thr Trp Pro Lys Asp Val Gly Ile Leu Ala Leu Glu Val Tyr Phe Pro
50 55 60

Ala Gln Tyr Val Asp Gln Thr Asp Leu Glu Lys Phe Asn Asn Val Glu
65 70 75 80

Ala Gly Lys Tyr Thr Val Gly Leu Gly Gln Thr Arg Met Gly Phe Cys
85 90 95

Ser Val Gln Glu Asp Ile Asn Ser Leu Cys Leu Thr Val Val Gln Arg
100 105 110

Leu Met Glu Arg Thr Lys Leu Pro Trp Asp Ala Val Gly Arg Leu Glu
115 120 125

Val Gly Thr Glu Thr Ile Ile Asp Lys Ser Lys Ala Val Lys Thr Val
130 135 140

Leu Met Glu Leu Phe Gln Asp Ser Gly Asn Thr Asp Ile Glu Gly Ile
145 150 155 160

Asp Thr Thr Asn Ala Cys Tyr Gly Gly Thr Ala Ser Leu Phe Asn Ala
165 170 175

Ala Asn Trp Met Glu Ser Ser Tyr Trp Asp Gly Arg Tyr Ala Leu Val
180 185 190

Val Cys Gly Asp Ile Ala Val Tyr Pro Ser Gly Asn Pro Arg Pro Thr
195 200 205

Gly Gly Ala Gly Ala Val Ala Met Leu Ile Gly Pro Lys Ala Pro Leu
210 215 220

Val Leu Glu Gln Gly Leu Arg Gly Thr His Met Glu Asn Ala Tyr Asp
225 230 235 240

Phe Tyr Lys Pro Asn Leu Ala Ser Glu Tyr Pro Leu Val Asp Gly Lys
245 250 255

Leu Ser Ile Gln Cys Tyr Leu Arg Ala Leu Asp Arg Cys Tyr Ala Ala
260 265 270

Tyr Arg Arg Lys Ile Gln Asn Gln Trp Lys Gln Ala Gly Asn Asn Gln
275 280 285

Pro Phe Thr Leu Asp Asp Val Gln Tyr Met Ile Phe His Thr Pro Phe
290 295 300

Cys Lys Met Val Gln Lys Ser Leu Ala Arg Leu Met Phe Asn Asp Phe
305 310 315 320

Leu Ser Ser Ser Ser Asp Lys Gln Asn Asn Leu Tyr Lys Gly Leu Glu
325 330 335

Ala Phe Lys Gly Leu Lys Leu Glu Glu Thr Tyr Thr Asn Lys Asp Val
340 345 350

Asp Lys Ala Leu Leu Lys Ala Ser Leu Asp Met Phe Asn Lys Lys Thr
355 360 365

Lys Ala Ser Leu Tyr Leu Ser Thr Asn Asn Gly Asn Met Tyr Thr Ser
370 375 380

Ser Leu Tyr Gly Cys Leu Ala Ser Leu Leu Ser His His Ser Ala Gln
385 390 395 400

Glu Leu Ala Gly Ser Arg Ile Gly Ala Phe Ser Tyr Gly Ser Gly Leu
405 410 415

Ala Ala Ser Phe Phe Ser Phe Arg Val Ser Lys Asp Ala Ser Pro Gly
420 425 430

Ser Pro Leu Glu Lys Leu Val Ser Ser Val Ser Asp Leu Pro Lys Arg
435 440 445

Leu Asp Ser Arg Arg Arg Met Ser Pro Glu Glu Phe Thr Glu Ile Met
450 455 460

Asn Gln Arg Glu Gln Phe Tyr His Lys Val Asn Phe Ser Pro Pro Gly
465 470 475 480

Asp Thr Ser Asn Leu Phe Pro Gly Thr Trp Tyr Leu Glu Arg Val Asp
485 490 495

Glu Met His Arg Arg Lys Tyr Ala Arg Arg Pro Val
500 505

<210> 317

<211> 567
 <212> PRT
 <213> Artemisia annua

<400> 317

Met Asp Leu Arg Arg Lys Leu Pro Pro Lys Pro Pro Ser Ser Thr Thr
 1 5 10 15

Thr Lys Gln Pro Ser His Arg Ser His Ser Pro Thr Pro Ile Pro Lys
 20 25 30

Ala Ser Asp Ala Leu Pro Leu Pro Leu Tyr Leu Thr Asn Thr Phe Phe
 35 40 45

Phe Thr Leu Phe Phe Ser Val Ala Tyr Tyr Leu Leu His Arg Trp Arg
 50 55 60

Asp Lys Ile Arg Ser Gly Thr Pro Leu His Val Val Thr Leu Thr Glu
 65 70 75 80

Leu Ser Ala Ile Val Leu Leu Ile Ala Ser Phe Ile Tyr Leu Leu Gly
 85 90 95

Phe Phe Gly Ile Asp Phe Val Gln Ser Phe Thr Ser Arg Glu Asn Glu
 100 105 110

Gln Leu Asn Asn Asp Asp His Asn Val Val Ser Thr Asn Asn Val Leu
 115 120 125

Ser Asp Arg Arg Leu Val Tyr Asp Tyr Gly Phe Asp Val Thr Gly Asp
 130 135 140

Asn Asp Asn Asp Asn Asp Asp Asp Val Ile Val Lys Ser Val Val Ser
 145 150 155 160

Gly Glu Val Asn Ser Tyr Ser Leu Glu Ala Ser Leu Gly Asp Cys Tyr
 165 170 175

Arg Ala Ala Lys Ile Arg Lys Arg Ala Val Glu Arg Ile Val Gly Arg
 180 185 190

Glu Val Leu Gly Leu Gly Phe Glu Gly Phe Asp Tyr Glu Ser Ile Leu
 195 200 205

Gly Gln Cys Cys Glu Met Pro Ile Gly Tyr Val Gln Val Pro Val Gly
 210 215 220

Val Ala Gly Pro Leu Leu Leu Asn Gly Gly Glu Phe Met Val Pro Met
 225 230 235 240

Ala Thr Thr Glu Gly Cys Leu Val Ala Ser Thr Asn Arg Gly Cys Lys
 245 250 255

Ala Ile Cys Leu Ser Gly Gly Ala Thr Ala Ile Leu Leu Lys Asp Gly
 260 265 270

Met Thr Arg Ala Pro Val Val Arg Phe Ala Thr Ala Glu Arg Ala Ser
 275 280 285

Gln Leu Lys Phe Tyr Leu Glu Asp Gly Val Asn Phe Asp Thr Leu Ser
 290 295 300

Val Val Phe Asn Lys Ser Ser Arg Phe Ala Arg Leu Gln Asn Ile Gln
 305 310 315 320

Cys Ser Ile Ala Gly Lys Asn Leu Tyr Ile Arg Phe Thr Cys Ser Thr
 325 330 335

Gly Asp Ala Met Gly Met Asn Met Val Ser Lys Gly Val Gln Asn Val
 340 345 350

Leu Asp Phe Leu Gln Asn Asp Phe Pro Asp Met Asp Val Ile Gly Ile
 355 360 365

Ser Trp Lys Phe Cys Ser Asp Lys Lys Pro Thr Ala Val Asn Trp Ile
 370 375 380

Glu Gly Arg Gly Lys Ser Val Val Phe Gln Ala Val Ile Thr Lys Lys
 385 390 395 400

Val Val Arg Lys Ser Ala Leu Asn Pro Gln Thr Cys Thr Cys Arg Thr
 405 410 415

Leu Thr Cys Leu Arg Pro Leu Leu Val Leu Leu Leu Leu Val Leu Leu
 420 425 430

Val Asp Leu Met His Met Leu His Ile Val Ser Ala Val Phe Ile Ala
 435 440 445

Thr Gly Gln Asp Pro Ala Gln Asn Ile Glu Ser Ser His Cys Ile Thr
 450 455 460

Met Met Glu Ala Val Asn Asn Gly Lys Asp Leu His Val Asn Val Thr
 465 470 475 480

Met Pro Ser Ile Glu Val Gly Thr Val Gly Gly Gly Thr Gln Leu Ala
 485 490 495

Ser Gln Ser Ala Cys Leu Asn Leu Leu Gly Val Lys Gly Ala Cys Ile
 500 505 510

Glu Ser Pro Gly Ser Asn Ala Gln Leu Leu Ala Arg Ile Val Ala Gly
 515 520 525

Ser Val Leu Ala Gly Glu Leu Ser Leu Met Ser Ala Ile Ser Ala Gly
 530 535 540

Gln Leu Val Lys Ser His Met Lys Tyr Asn Arg Ser Ser Arg Asp Met
 545 550 555 560

Ser Ala Ile Ala Ser Lys Val
 565

<210> 318
 <211> 428
 <212> PRT
 <213> Pseudomonas mevalonii

<400> 318

Met Ser Leu Asp Ser Arg Leu Pro Ala Phe Arg Asn Leu Ser Pro Ala
 1 5 10 15

Ala Arg Leu Asp His Ile Gly Gln Leu Leu Gly Leu Ser His Asp Asp
 20 25 30

Val Ser Leu Leu Ala Asn Ala Gly Ala Leu Pro Met Asp Ile Ala Asn
 35 40 45

Gly Met Ile Glu Asn Val Ile Gly Thr Phe Glu Leu Pro Tyr Ala Val
 50 55 60

Ala Ser Asn Phe Gln Ile Asn Gly Arg Asp Val Leu Val Pro Leu Val
 65 70 75 80

Val Glu Glu Pro Ser Ile Val Ala Ala Ala Ser Tyr Met Ala Lys Leu
 85 90 95

Ala Arg Ala Asn Gly Gly Phe Thr Thr Ser Ser Ser Ala Pro Leu Met
 100 105 110

His Ala Gln Val Gln Ile Val Gly Ile Gln Asp Pro Leu Asn Ala Arg
 115 120 125

Leu Ser Leu Leu Arg Arg Lys Asp Glu Ile Ile Glu Leu Ala Asn Arg
 130 135 140

Lys Asp Gln Leu Leu Asn Ser Leu Gly Gly Gly Cys Arg Asp Ile Glu
 145 150 155 160

Val His Thr Phe Ala Asp Thr Pro Arg Gly Pro Met Leu Val Ala His
 165 170 175

Leu Ile Val Asp Val Arg Asp Ala Met Gly Ala Asn Thr Val Asn Thr
 180 185 190

Met Ala Glu Ala Val Ala Pro Leu Met Glu Ala Ile Thr Gly Gly Gln
 195 200 205

Val Arg Leu Arg Ile Leu Ser Asn Leu Ala Asp Leu Arg Leu Ala Arg
 210 215 220

Ala Gln Val Arg Ile Thr Pro Gln Gln Leu Glu Thr Ala Glu Phe Ser
 225 230 235 240

Gly Glu Ala Val Ile Glu Gly Ile Leu Asp Ala Tyr Ala Phe Ala Ala
 245 250 255

Val Asp Pro Tyr Arg Ala Ala Thr His Asn Lys Gly Ile Met Asn Gly
 260 265 270

Ile Asp Pro Leu Ile Val Ala Thr Gly Asn Asp Trp Arg Ala Val Glu
 275 280 285

Ala Gly Ala His Ala Tyr Ala Cys Arg Ser Gly His Tyr Gly Ser Leu
 290 295 300

Thr Thr Trp Glu Lys Asp Asn Asn Gly His Leu Val Gly Thr Leu Glu
 305 310 315 320

Met Pro Met Pro Val Gly Leu Val Gly Gly Ala Thr Lys Thr His Pro
 325 330 335

Leu Ala Gln Leu Ser Leu Arg Ile Leu Gly Val Lys Thr Ala Gln Ala
 340 345 350

Leu Ala Glu Ile Ala Val Ala Val Gly Leu Ala Gln Asn Leu Gly Ala
 355 360 365

Met Arg Ala Leu Ala Thr Glu Gly Ile Gln Arg Gly His Met Ala Leu
 370 375 380

His Ala Arg Asn Ile Ala Val Val Ala Gly Ala Arg Gly Asp Glu Val
 385 390 395 400

Asp Trp Val Ala Arg Gln Leu Val Glu Tyr His Asp Val Arg Ala Asp
 405 410 415

Arg Ala Val Ala Leu Leu Lys Gln Lys Arg Gly Gln
 420 425

<210> 319
 <211> 428
 <212> PRT
 <213> Pseudomonas mevalonii

<400> 319

Met Ser Leu Asp Ser Arg Leu Pro Ala Phe Arg Asn Leu Ser Pro Ala
 1 5 10 15

Ala Arg Leu Asp His Ile Gly Gln Leu Leu Gly Leu Ser His Asp Asp
 20 25 30

Val Ser Leu Leu Ala Asn Ala Gly Ala Leu Pro Met Asp Ile Ala Asn
 35 40 45

Gly Met Ile Glu Asn Val Ile Gly Thr Phe Glu Leu Pro Tyr Ala Val
 50 55 60

Ala Ser Asn Phe Gln Ile Asn Gly Arg Asp Val Leu Val Pro Leu Val
 65 70 75 80

Val Glu Glu Pro Ser Ile Val Ala Ala Ala Ser Tyr Met Ala Lys Leu
 85 90 95

Ala Arg Ala Asn Gly Gly Phe Thr Thr Ser Ser Ser Ala Pro Leu Met
 100 105 110

His Ala Gln Val Gln Ile Val Gly Ile Gln Asp Pro Leu Asn Ala Arg
 115 120 125

Leu Ser Leu Leu Arg Arg Lys Asp Glu Ile Ile Glu Leu Ala Asn Arg

130	135	140															
Lys	Asp	Gln	Leu	Leu	Asn	Ser	Leu	Gly	Gly	Gly	Cys	Arg	Asp	Ile	Glu		
145					150					155					160		
Val	His	Thr	Phe	Ala	Asp	Thr	Pro	Arg	Gly	Pro	Met	Leu	Val	Ala	His		
				165					170					175			
Leu	Ile	Val	Asp	Val	Arg	Asp	Ala	Met	Gly	Ala	Asn	Thr	Val	Asn	Thr		
			180					185					190				
Met	Ala	Glu	Ala	Val	Ala	Pro	Leu	Met	Glu	Ala	Ile	Thr	Gly	Gly	Gln		
		195					200					205					
Val	Arg	Leu	Arg	Ile	Leu	Ser	Asn	Leu	Ala	Asp	Leu	Arg	Leu	Ala	Arg		
	210					215					220						
Ala	Gln	Val	Arg	Ile	Thr	Pro	Gln	Gln	Leu	Glu	Thr	Ala	Glu	Phe	Ser		
225					230					235					240		
Gly	Glu	Ala	Val	Ile	Glu	Gly	Ile	Leu	Asp	Ala	Tyr	Ala	Phe	Ala	Ala		
				245					250					255			
Val	Asp	Pro	Tyr	Arg	Ala	Ala	Thr	His	Asn	Lys	Gly	Ile	Met	Asn	Gly		
			260					265					270				
Ile	Asp	Pro	Leu	Ile	Val	Ala	Thr	Gly	Asn	Asp	Trp	Arg	Ala	Val	Glu		
		275					280					285					
Ala	Gly	Ala	His	Ala	Tyr	Ala	Cys	Arg	Ser	Gly	His	Tyr	Gly	Ser	Leu		
	290					295					300						
Thr	Thr	Trp	Glu	Lys	Asp	Asn	Asn	Gly	His	Leu	Val	Gly	Thr	Leu	Glu		
305					310					315					320		
Met	Pro	Met	Pro	Val	Gly	Leu	Val	Gly	Gly	Ala	Thr	Lys	Thr	His	Pro		
				325					330					335			
Leu	Ala	Gln	Leu	Ser	Leu	Arg	Ile	Leu	Gly	Val	Lys	Thr	Ala	Gln	Ala		
			340					345					350				
Leu	Ala	Glu	Ile	Ala	Val	Ala	Val	Gly	Leu	Ala	Gln	Asn	Leu	Gly	Ala		
		355					360					365					
Met	Arg	Ala	Leu	Ala	Thr	Glu	Gly	Ile	Gln	Arg	Gly	His	Met	Ala	Leu		
	370					375					380						

His Ala Arg Asn Ile Ala Val Val Ala Gly Ala Arg Gly Asp Glu Val
 385 390 395 400

Asp Trp Val Ala Arg Gln Leu Val Glu Tyr His Asp Val Arg Ala Asp
 405 410 415

Arg Ala Val Ala Leu Leu Lys Gln Lys Arg Gly Gln
 420 425

<210> 320
 <211> 428
 <212> PRT
 <213> Pseudomonas mevalonii

<400> 320

Met Ser Leu Asp Ser Arg Leu Pro Ala Phe Arg Asn Leu Ser Pro Ala
 1 5 10 15

Ala Arg Leu Asp His Ile Gly Gln Leu Leu Gly Leu Ser His Asp Asp
 20 25 30

Val Ser Leu Leu Ala Asn Ala Gly Ala Leu Pro Met Asp Ile Ala Asn
 35 40 45

Gly Met Ile Glu Asn Val Ile Gly Thr Phe Glu Leu Pro Tyr Ala Val
 50 55 60

Ala Ser Asn Phe Gln Ile Asn Gly Arg Asp Val Leu Val Pro Leu Val
 65 70 75 80

Val Glu Glu Pro Ser Ile Val Ala Ala Ala Ser Tyr Met Ala Lys Leu
 85 90 95

Ala Arg Ala Asn Gly Gly Phe Thr Thr Ser Ser Ser Ala Pro Leu Met
 100 105 110

His Ala Gln Val Gln Ile Val Gly Ile Gln Asp Pro Leu Asn Ala Arg
 115 120 125

Leu Ser Leu Leu Arg Arg Lys Asp Glu Ile Ile Glu Leu Ala Asn Arg
 130 135 140

Lys Asp Gln Leu Leu Asn Ser Leu Gly Gly Gly Cys Arg Asp Ile Glu
 145 150 155 160

Val His Thr Phe Ala Asp Thr Pro Arg Gly Pro Met Leu Val Ala His
165 170 175
Leu Ile Val Asp Val Arg Asp Ala Met Gly Ala Asn Thr Val Asn Thr
180 185 190
Met Ala Glu Ala Val Ala Pro Leu Met Glu Ala Ile Thr Gly Gly Gln
195 200 205
Val Arg Leu Arg Ile Leu Ser Asn Leu Ala Asp Leu Arg Leu Ala Arg
210 215 220
Ala Gln Val Arg Ile Thr Pro Gln Gln Leu Glu Thr Ala Glu Phe Ser
225 230 235 240
Gly Glu Ala Val Ile Glu Gly Ile Leu Asp Ala Tyr Ala Phe Ala Ala
245 250 255
Val Asp Pro Tyr Arg Ala Ala Thr His Asn Lys Gly Ile Met Asn Gly
260 265 270
Ile Asp Pro Leu Ile Val Ala Thr Gly Asn Asp Trp Arg Ala Val Glu
275 280 285
Ala Gly Ala His Ala Tyr Ala Cys Arg Ser Gly His Tyr Gly Ser Leu
290 295 300
Thr Thr Trp Glu Lys Asp Asn Asn Gly His Leu Val Gly Thr Leu Glu
305 310 315 320
Met Pro Met Pro Val Gly Leu Val Gly Gly Ala Thr Lys Thr His Pro
325 330 335
Leu Ala Gln Leu Ser Leu Arg Ile Leu Gly Val Lys Thr Ala Gln Ala
340 345 350
Leu Ala Glu Ile Ala Val Ala Val Gly Leu Ala Gln Asn Leu Gly Ala
355 360 365
Met Arg Ala Leu Ala Thr Glu Gly Ile Gln Arg Gly His Met Ala Leu
370 375 380
His Ala Arg Asn Ile Ala Val Val Ala Gly Ala Arg Gly Asp Glu Val
385 390 395 400
Asp Trp Val Ala Arg Gln Leu Val Glu Tyr His Asp Val Arg Ala Asp

405

410

415

Arg Ala Val Ala Leu Leu Lys Gln Lys Arg Gly Gln
 420 425

<210> 321

<211> 428

<212> PRT

<213> *Pseudomonas mevalonii*

<400> 321

Met Ser Leu Asp Ser Arg Leu Pro Ala Phe Arg Asn Leu Ser Pro Ala
 1 5 10 15

Ala Arg Leu Asp His Ile Gly Gln Leu Leu Gly Leu Ser His Asp Asp
 20 25 30

Val Ser Leu Leu Ala Asn Ala Gly Ala Leu Pro Met Asp Ile Ala Asn
 35 40 45

Gly Met Ile Glu Asn Val Ile Gly Thr Phe Glu Leu Pro Tyr Ala Val
 50 55 60

Ala Ser Asn Phe Gln Ile Asn Gly Arg Asp Val Leu Val Pro Leu Val
 65 70 75 80

Val Glu Glu Pro Ser Ile Val Ala Ala Ala Ser Tyr Met Ala Lys Leu
 85 90 95

Ala Arg Ala Asn Gly Gly Phe Thr Thr Ser Ser Ser Ala Pro Leu Met
 100 105 110

His Ala Gln Val Gln Ile Val Gly Ile Gln Asp Pro Leu Asn Ala Arg
 115 120 125

Leu Ser Leu Leu Arg Arg Lys Asp Glu Ile Ile Glu Leu Ala Asn Arg
 130 135 140

Lys Asp Gln Leu Leu Asn Ser Leu Gly Gly Gly Cys Arg Asp Ile Glu
 145 150 155 160

Val His Thr Phe Ala Asp Thr Pro Arg Gly Pro Met Leu Val Ala His
 165 170 175

Leu Ile Val Asp Val Arg Asp Ala Met Gly Ala Asn Thr Val Asn Thr
 180 185 190

Met Ala Glu Ala Val Ala Pro Leu Met Glu Ala Ile Thr Gly Gly Gln
 195 200 205

Val Arg Leu Arg Ile Leu Ser Asn Leu Ala Asp Leu Arg Leu Ala Arg
 210 215 220

Ala Gln Val Arg Ile Thr Pro Gln Gln Leu Glu Thr Ala Glu Phe Ser
 225 230 235 240

Gly Glu Ala Val Ile Glu Gly Ile Leu Asp Ala Tyr Ala Phe Ala Ala
 245 250 255

Val Asp Pro Tyr Arg Ala Ala Thr His Asn Lys Gly Ile Met Asn Gly
 260 265 270

Ile Asp Pro Leu Ile Val Ala Thr Gly Asn Asp Trp Arg Ala Val Glu
 275 280 285

Ala Gly Ala His Ala Tyr Ala Cys Arg Ser Gly His Tyr Gly Ser Leu
 290 295 300

Thr Thr Trp Glu Lys Asp Asn Asn Gly His Leu Val Gly Thr Leu Glu
 305 310 315 320

Met Pro Met Pro Val Gly Leu Val Gly Gly Ala Thr Lys Thr His Pro
 325 330 335

Leu Ala Gln Leu Ser Leu Arg Ile Leu Gly Val Lys Thr Ala Gln Ala
 340 345 350

Leu Ala Glu Ile Ala Val Ala Val Gly Leu Ala Gln Asn Leu Gly Ala
 355 360 365

Met Arg Ala Leu Ala Thr Glu Gly Ile Gln Arg Gly His Met Ala Leu
 370 375 380

His Ala Arg Asn Ile Ala Val Val Ala Gly Ala Arg Gly Asp Glu Val
 385 390 395 400

Asp Trp Val Ala Arg Gln Leu Val Glu Tyr His Asp Val Arg Ala Asp
 405 410 415

Arg Ala Val Ala Leu Leu Lys Gln Lys Arg Gly Gln
 420 425

<210> 322
 <211> 560
 <212> PRT
 <213> Oryza sativa

<400> 322

Met Glu Val Arg Arg Arg Ala Pro Leu Pro Pro Pro Pro Gly Arg Val
 1 5 10 15

Gln Ala Gly Asp Ala Leu Pro Leu Pro Ile Arg His Thr Asn Leu Ile
 20 25 30

Phe Ser Ala Leu Phe Ala Ala Ser Leu Ala Tyr Leu Met Arg Arg Trp
 35 40 45

Arg Glu Lys Ile Arg Ser Ser Thr Pro Leu His Val Val Gly Leu Ala
 50 55 60

Glu Met Leu Ala Ile Phe Gly Leu Val Ala Ser Leu Ile Tyr Leu Leu
 65 70 75 80

Ser Phe Phe Gly Ile Ala Phe Val Gln Ser Ile Val Ser Ser Ser Asp
 85 90 95

Asp Glu Glu Glu Asp Phe Leu Val Gly Pro Ala Arg Gly Ser Ser Ala
 100 105 110

Ala Ala Ala Val Ala Pro Arg Ala Pro Ser Ser Pro Ala Gln Cys Ser
 115 120 125

Leu Leu Gly Ser Pro His Asp Asp Ala Ala Arg Glu Arg Met Pro Glu
 130 135 140

Glu Asp Glu Glu Ile Val Ser Ser Val Val Ala Gly Lys Val Pro Ser
 145 150 155 160

Tyr Val Leu Glu Thr Lys Leu Gly Asp Cys Arg Arg Ala Ala Gly Ile
 165 170 175

• Arg Arg Glu Ala Val Arg Arg Ile Thr Gly Arg Gln Ile Glu Gly Leu
 180 185 190

Pro Leu Asp Gly Phe Asp Tyr Ala Ser Ile Leu Gly Gln Cys Cys Glu
 195 200 205

Leu Pro Val Gly Tyr Val Gln Leu Pro Val Gly Ile Ala Gly Pro Leu
 210 215 220

Leu Leu Asp Gly Gln Arg Phe Tyr Val Pro Met Ala Thr Thr Glu Gly
 225 230 235 240

Cys Leu Val Ala Ser Thr Asn Arg Gly Cys Lys Ala Ile Ala Glu Ser
 245 250 255

Gly Gly Ala Val Ser Val Val Leu Arg Asp Gly Met Thr Arg Ala Pro
 260 265 270

Val Ala Arg Leu Pro Thr Ala Arg Arg Ala Ala Glu Leu Lys Ala Phe
 275 280 285

Leu Glu Asp Ser Val Asn Phe Asn Thr Leu Ser Met Val Phe Asn Arg
 290 295 300

Ser Ser Arg Phe Ala Arg Leu Gln Gly Val Gln Cys Ala Met Ala Gly
 305 310 315 320

Arg Asn Leu Tyr Met Arg Phe Ser Cys Cys Thr Gly Asp Ala Met Gly
 325 330 335

Met Asn Met Val Ser Lys Gly Glu Gln Asn Val Leu Asp Tyr Leu Gln
 340 345 350

Asp Asp Phe Pro Asp Met Asp Val Ile Ser Ile Ser Gly Asn Phe Cys
 355 360 365

Ser Asp Lys Lys Pro Ala Ala Val Asn Trp Ile Glu Gly Arg Gly Lys
 370 375 380

Ser Val Val Cys Glu Ala Val Ile Lys Glu Asp Val Val Lys Lys Val
 385 390 395 400

Leu Lys Thr Asn Val Gln Ser Leu Val Glu Leu Asn Val Ile Lys Asn
 405 410 415

Leu Ala Gly Ser Ala Val Ala Gly Ala Leu Gly Gly Phe Asn Ala His
 420 425 430

Ala Ser Asn Ile Val Thr Ala Ile Phe Ile Ala Thr Gly Gln Asp Pro
 435 440 445

Ala Gln Asn Val Glu Ser Ser His Cys Ile Thr Met Leu Glu Ala Val
 450 455 460

Asn Asp Gly Arg Asp Leu His Ile Ser Val Thr Met Pro Ser Ile Glu
 465 470 475 480

Val Gly Thr Val Gly Gly Gly Thr Gln Leu Ala Ser Gln Ala Ala Cys
 485 490 495

Leu Asp Leu Leu Gly Val Lys Gly Ala Asn Arg Glu Ser Pro Gly Ser
 500 505 510

Asn Ala Arg Leu Leu Ala Thr Val Val Ala Gly Gly Val Leu Ala Gly
 515 520 525

Glu Leu Ser Leu Leu Ser Ala Leu Arg Ala Gly Gln Leu Val Lys Ser
 530 535 540

His Met Lys Tyr Asn Arg Ser Ser Lys Asp Met Ser Lys Val Ile Ser
 545 550 555 560

<210> 323

<211> 587

<212> PRT

<213> Cucumis melo

<400> 323

Met Asp Arg Arg Arg Ser Leu Arg Pro Pro Arg Pro Asn Ala Val Gln
 1 5 10 15

Asp Ala Asp Ala Thr Cys Thr Phe Arg Arg Asp Glu Gln Asp Ala Ser
 20 25 30

Ala Ala Asp His Leu Lys Arg Ala Ser Pro Lys Ala Ser Asp Ala Leu
 35 40 45

Pro Leu Pro Leu Tyr Leu Thr Asn Thr Ile Phe Phe Thr Leu Phe Phe
 50 55 60

Ser Val Ala Tyr Tyr Leu Leu His Arg Trp Arg Asp Lys Ile Arg Asn
 65 70 75 80

Ser Thr Pro Leu His Val Val Thr Leu Ser Glu Ile Ala Ala Ile Val
 85 90 95

Ser Leu Met Ala Ser Phe Ile Tyr Leu Leu Gly Phe Phe Gly Ile Asp
 100 105 110

Phe Val Gln Ser Phe Ile Ala Arg Ser Ser Pro Asp Ala Trp Asp Leu

115	120	125
Glu Asp Glu Ile Asp Arg Thr Leu Leu Ile Asp Asn Asn Arg Tyr Ala 130 135 140		
Ala Pro Arg Ser Ala Ser Ala Val Ala Leu Pro Ser Lys Val Val Asp 145 150 155 160		
Ala Glu Ala Leu Asn Thr Ile Pro Leu Pro Glu Glu Asp Glu Glu Val 165 170 175		
Val Lys Met Val Val Asp Gly Ser Val Pro Ser Tyr Ser Leu Glu Ser 180 185 190		
Lys Leu Gly Asp Pro Lys Arg Ala Ala Ser Ile Arg Arg Glu Ala Leu 195 200 205		
Gln Arg Thr Thr Gly Arg Ser Ile His Gly Leu Pro Phe Glu Gly Phe 210 215 220		
Asp Tyr Glu Ser Ile Leu Gly Gln Cys Cys Glu Met Pro Val Gly Tyr 225 230 235 240		
Val Gln Ile Pro Val Gly Ile Ala Gly Pro Leu Leu Leu Asp Gly Phe 245 250 255		
Glu Tyr Thr Val Pro Met Ala Thr Thr Glu Gly Cys Leu Val Ala Ser 260 265 270		
Thr Asn Arg Gly Cys Lys Ala Ile Tyr Ala Ser Gly Gly Ala Thr Ser 275 280 285		
Met Leu Leu Lys Asp Gly Met Thr Arg Ala Pro Val Val Arg Phe Gly 290 295 300		
Ser Ala Lys Arg Ala Ser Glu Leu Lys Phe Phe Leu Glu Asp Pro Ser 305 310 315 320		
Asn Phe Asp Thr Leu Ala Val Val Phe Asn Arg Ser Ser Arg Phe Ala 325 330 335		
Arg Leu Gln Ser Ile Arg Cys Ser Ile Ala Gly Lys Asn Leu Tyr Val 340 345 350		
Arg Phe Cys Cys Ser Thr Gly Asp Ala Met Gly Met Asn Met Val Ser 355 360 365		

Lys Gly Val Gln Asn Val Leu Glu Phe Leu Gln His Asp Phe Ser Asp
370 375 380

Met Glu Val Ile Gly Ile Ser Gly Asn Phe Cys Ala Asp Lys Lys Pro
385 390 395 400

Ala Ala Val Asn Trp Ile Glu Gly Arg Gly Lys Ser Val Val Cys Glu
405 410 415

Ala Val Ile Lys Asp Glu Val Val Arg Lys Val Leu Lys Thr Ser Val
420 425 430

Ala Ser Leu Val Glu Leu Asn Met Leu Lys Asn Leu Thr Gly Ser Ala
435 440 445

Met Ala Gly Ala Leu Gly Gly Phe Asn Ala His Ser Ser Asn Ile Val
450 455 460

Ser Ala Ile Phe Leu Ala Thr Gly Gln Asp Pro Ala Gln Asn Val Glu
465 470 475 480

Ser Ser His Cys Ile Thr Met Met Glu Pro Val Asn Asn Gly Arg Asp
485 490 495

Leu His Ile Ser Val Thr Met Pro Ser Ile Glu Val Gly Thr Val Gly
500 505 510

Gly Gly Thr Gln Leu Ala Ser Gln Ser Ala Cys Leu Asn Leu Leu Gly
515 520 525

Val Lys Gly Ala Ser Lys Glu Ser Pro Gly Ala Asn Ser Arg Leu Leu
530 535 540

Ala Thr Ile Val Ala Gly Ser Val Leu Ala Gly Glu Leu Ser Leu Met
545 550 555 560

Ser Ala Ile Ala Ala Gly Gln Leu Val Arg Ser His Met Lys Tyr Asn
565 570 575

Arg Ser Ser Arg Asp Val Ser Lys Leu Glu Ser
580 585

<210> 324
<211> 121
<212> PRT

<213> Glycine max

<400> 324

Glu Gly Arg Gly Lys Ser Val Val Cys Glu Ala Ile Ile Lys Glu Glu
1 5 10 15

Val Val Gln Lys Val Leu Lys Thr Asn Val Ser Ala Leu Val Glu Leu
20 25 30

Asn Met Leu Lys Asn Leu Ala Gly Ser Ala Val Ala Gly Ala Leu Gly
35 40 45

Gly Phe Asn Ala His Ala Ser Asn Ile Val Ser Ala Ile Phe Ile Ala
50 55 60

Thr Gly Gln Asp Pro Ala Gln Asn Val Glu Ser Ser His Cys Ile Thr
65 70 75 80

Met Met Glu Ala Ile Asn Asp Gly Arg Asp Leu His Ile Ser Val Thr
85 90 95

Met Pro Ser Ile Glu Val Gly Thr Val Gly Gly Gly Thr Gln Leu Ala
100 105 110

Ser Gln Ser Ala Cys Leu Asn Leu Leu
115 120

<210> 325

<211> 236

<212> PRT

<213> Schistosoma mansoni

<400> 325

Met Leu Lys Ile Leu Asn Thr Val Leu Leu Phe Phe Asp Cys Phe Ser
1 5 10 15

Thr Gly Thr Phe Phe Val Leu Leu Ile Tyr Leu Phe Thr Arg Leu Arg
20 25 30

Thr His Leu Leu His Phe Ser Ser Ser Asn Cys His Leu Asp Val Ile
35 40 45

Ile Tyr Gln Ser Arg Ala Val Ile Ile Phe Leu Val Val Phe Val Tyr
50 55 60

Phe Ile Gly Val Leu Thr Cys Lys Ile Asn Asp Lys Ile Leu Val His
65 70 75 80

Thr Met Leu Arg Asn Lys Arg Gln Leu Asn Thr Leu Phe Tyr Thr Leu
85 90 95

Ile Leu Phe Thr Phe Ala Leu Cys Ser Leu Ser Ser Val Leu Phe Val
100 105 110

Pro Tyr Thr Ser Phe Ala Ile Phe Leu Leu Ser Thr Ser Val Phe Leu
115 120 125

Leu Phe Ser Asp Leu Ser Val Phe Phe Ile Val Leu Glu Tyr Tyr Leu
130 135 140

Leu Glu Ile Glu Leu Val Asn Tyr Glu His Ala Lys Arg His Cys Leu
145 150 155 160

Leu Ser His Leu Phe Ser Asn Gln Leu Phe Val Asp His Met Leu Gly
165 170 175

Met Phe Leu Lys Thr Ser Leu Phe Ser Ile Ser Thr Thr Ser Lys Tyr
180 185 190

Ala Tyr Leu Glu Ser Ile Phe Lys Cys Thr Leu Met Glu Gln Ile Ile
195 200 205

Tyr Ile Met Ile Val Phe Val Phe Leu Pro Ser Phe Met Arg Ile Phe
210 215 220

Ala Ser Tyr Ala Lys Arg Met Tyr Gly Glu Gln Lys
225 230 235

<210> 326
<211> 18
<212> PRT
<213> Solanum tuberosum

<400> 326

Met Asp Val Arg Arg Arg Pro Val Lys Pro Leu Tyr Pro Ser Glu His
1 5 10 15

Ile Ser

<210> 327
<211> 82
<212> PRT
<213> Solanum tuberosum

<400> 327

Met Asp Val Cys Arg Arg Pro Val Lys Pro Leu Tyr Thr Ser Lys Asp
1 5 10 15

Ala Phe Ala Gly Glu Pro Leu Lys Gln Glu Val Ser Ser Pro Lys Ala
20 25 30

Ser Asp Ala Leu Pro Leu Pro Leu Tyr Leu Thr Thr Gly Leu Phe Phe
35 40 45

Thr Met Phe Phe Ser Val Met Tyr Phe Leu Leu Val Arg Trp Arg Glu
50 55 60

Lys Ile Arg Asn Ser Ile Pro Leu His Val Val Thr Leu Ser Glu Leu
65 70 75 80

Leu Ala

<210> 328

<211> 82

<212> PRT

<213> Solanum tuberosum

<400> 328

Met Asp Val Arg Arg Arg Pro Val Lys Pro Leu Tyr Thr Ser Lys Asp
1 5 10 15

Ala Ser Ala Gly Glu Pro Leu Lys Gln Glu Val Ser Ser Pro Lys Ala
20 25 30

Ser Asp Ala Leu Pro Leu Pro Leu Tyr Leu Thr Thr Gly Leu Phe Phe
35 40 45

Thr Met Phe Phe Ser Val Met Tyr Phe Leu Leu Val Arg Trp Arg Glu
50 55 60

Lys Ile Arg Asn Ser Ile Pro Leu His Val Val Thr Leu Ser Glu Leu
65 70 75 80

Leu Ala

<210> 329

<211> 82

<212> PRT

<213> Solanum tuberosum

<400> 329

Met Asp Val Arg Arg Arg Pro Val Lys Pro Leu Tyr Thr Ser Lys Asp
1 5 10 15

Ala Ser Ala Gly Glu Pro Leu Lys Gln Glu Val Ser Ser Pro Lys Ala
20 25 30

Ser Asp Ala Leu Pro Leu Pro Leu Tyr Leu Thr Thr Arg Leu Phe Phe
35 40 45

Thr Met Phe Phe Ser Val Met Tyr Phe Leu Leu Val Arg Trp Arg Glu
50 55 60

Lys Ile Arg Asn Ser Ile Pro Phe His Val Val Thr Leu Ser Glu Leu
65 70 75 80

Leu Ala

<210> 330

<211> 82

<212> PRT

<213> Solanum tuberosum

<400> 330

Met Asp Val Arg Arg Arg Pro Val Lys Pro Leu Tyr Thr Ser Lys Asp
1 5 10 15

Ala Ser Ala Gly Glu Pro Leu Lys Gln Glu Val Ser Ser Pro Lys Ala
20 25 30

Ser Asp Ala Leu Pro Leu Pro Leu Tyr Leu Thr Thr Gly Leu Phe Phe
35 40 45

Thr Met Phe Phe Ser Val Met Tyr Phe Leu Leu Val Arg Trp Arg Glu
50 55 60

Lys Ile Arg Asn Ser Ile Pro Leu His Val Val Thr Leu Ser Glu Leu
65 70 75 80

Leu Ala

<210> 331

<211> 82

<212> PRT
<213> Solanum tuberosum

<400> 331

Met Asp Val Arg Arg Arg Pro Val Lys Pro Leu Tyr Thr Ser Lys Asp
1 5 10 15

Ala Ser Ala Gly Glu Pro Leu Lys Gln Glu Val Ser Ser Pro Lys Ala
20 25 30

Ser Asp Ala Leu Pro Leu Pro Leu Tyr Leu Thr Thr Gly Leu Phe Phe
35 40 45

Thr Met Phe Phe Ser Val Met Tyr Phe Leu Leu Ile Arg Trp Arg Glu
50 55 60

Lys Ile Arg Asn Ser Ile Pro Leu His Ala Val Thr Leu Ser Glu Leu
65 70 75 80

Leu Ala

<210> 332
<211> 59
<212> PRT
<213> Solanum tuberosum

<400> 332

Met Asp Val Arg Arg Arg Pro Val Lys Pro Leu Tyr Thr Ser Lys Asp
1 5 10 15

Ala Ser Ala Gly Glu Pro Leu Lys Gln Glu Val Ser Ser Pro Lys Ala
20 25 30

Ser Tyr Ala Leu Pro Leu Pro Leu Tyr Leu Thr Thr Gly Leu Phe Phe
35 40 45

Thr Met Phe Ser Leu Leu Cys Ile Phe Phe Ser
50 55

<210> 333
<211> 934
<212> PRT
<213> Pichia jadinii

<400> 333

Met Phe Tyr His Gly Ala Ser Ala Asn Gln His Trp Ile Ala Val Asp
1 5 10 15

Asp Leu Ser Lys Val Pro Val Asp Val Asp His Tyr Asn Val Val Pro
 20 25 30

Phe Gln Phe Arg Arg Ala Gly Glu Tyr Lys Glu Pro Val Leu Ser Gly
 35 40 45

Ile Val Glu Leu Asp Glu Val Lys Phe Val Val Ser Gln Ser Asp Ala
 50 55 60

Ala Glu Gln Trp Gln Gln Leu Thr Ala Glu Asp Gly Thr Val Trp Arg
 65 70 75 80

Ser Arg Ala Tyr His Gly Lys Leu Gly Lys Tyr Ser Asp Met Ala Val
 85 90 95

Gly Ala Phe Asn Lys Val Leu Asn Leu Val Arg Gly Ala Glu Thr Phe
 100 105 110

Asp Ile Ala Leu Val Thr Cys Ala Tyr Ile Ala Met Phe Tyr Thr Leu
 115 120 125

Phe Asn Leu Phe Ala Arg Met Arg Ala Val Gly Ser Lys Val Trp Leu
 130 135 140

Gly Leu Ser Thr Leu Val Ser Ser Phe Phe Ala Phe Leu Phe Ala Leu
 145 150 155 160

Tyr Ile Thr Thr Arg Val Leu Asp Leu Ser Ile Pro Phe Leu Ser Leu
 165 170 175

Ser Glu Gly Ile Pro Phe Phe Val Ala Val Val Gly Phe Asn Asn Lys
 180 185 190

Ile Leu Leu Ala Glu Lys Val Leu Gln Asn Gln Leu Asn Ala Gln Ser
 195 200 205

Ser Lys Asn Asp Ala Pro Thr Val Leu Tyr Gln Ala Leu Arg Glu Gln
 210 215 220

Gly Pro Leu Leu Leu Arg Asp His Leu Phe Met Ile Thr Ala Phe Leu
 225 230 235 240

Gly Cys Ser Phe Tyr Ala Ser Tyr Leu Asp Gly Leu Lys Asn Phe Cys
 245 250 255

Ile Leu Ala Ala Leu Ile Leu Ala Phe Asp Ile Leu Thr Thr Ser Thr
260 265 270

Phe Leu Ser Ala Ile Leu Ser Leu Lys Leu Glu Ile Asn Gln Ile His
275 280 285

Arg Ser Thr Leu Leu Arg Glu Gln Leu Glu Asp Asp Gly Leu Thr Glu
290 295 300

Thr Thr Val Asp Asp Val Leu Lys Ser Asn Ser Leu Ala Gly Thr Lys
305 310 315 320

Thr Phe Thr Asp Ala Pro Ser Thr Leu Val Thr Val Ala Lys Val Ala
325 330 335

Gly Val Ser Val Phe Phe Gly Leu His Phe Tyr Gly Phe Gly Ser Ala
340 345 350

Trp Leu Ser Asp Leu Ser Ala Gly Asn Glu Thr Asn Asp Thr Phe Thr
355 360 365

Leu Tyr Asp Ala Val Ala Asp Gln Ile Pro Ile Gly Ser Asn Gly Thr
370 375 380

Leu Val Thr Leu Phe Pro Thr Arg Phe Phe Leu Pro Glu Lys Leu Ser
385 390 395 400

Thr Gln Ile Glu Ala Val Val Leu Ser Phe Ile Gly Leu Ile Ser Thr
405 410 415

Ala Ala Arg Asp Lys Tyr Ile Ser Lys Phe Ile Leu Phe Ala Phe Ala
420 425 430

Val Ser Ala Ser Ile Asn Val Tyr Leu Leu Asn Val Ala Arg Ile His
435 440 445

Thr Thr Arg Leu Glu Asp Ala Ile Glu Leu Lys Lys Pro Lys Lys Lys
450 455 460

Ala Ser Lys Thr Ala Val Ser Val Pro Lys Ala Val Val Val Lys Asp
465 470 475 480

Ser Glu Thr Thr Lys Ser Ser Glu Ile Leu His Ser Ser Ser Glu Ser
485 490 495

Glu Ser Glu Gln Ser Ser Arg Pro Leu Glu Gln Val Ile Glu Leu Tyr
 500 505 510
 Lys Asp Gly Lys Val Lys Thr Leu Val Asp Asp Glu Val Val Ser Leu
 515 520 525
 Val Thr Ala Gly Lys Leu Pro Leu Tyr Ala Leu Glu Lys Gln Leu Gly
 530 535 540
 Asp Asn Leu Arg Ala Val Ala Ile Arg Arg Lys Ala Ile Ser Asp Leu
 545 550 555 560
 Ala Asp Ala Pro Val Leu Arg Ser Asn Lys Leu Pro Tyr Leu His Tyr
 565 570 575
 Asp Tyr Asp Arg Val Phe Gly Ala Cys Cys Glu Asn Val Ile Gly Tyr
 580 585 590
 Met Pro Leu Pro Val Gly Val Ala Gly Pro Leu Ile Ile Asp Gly Lys
 595 600 605
 Pro Tyr His Ile Pro Met Ala Thr Thr Glu Gly Cys Leu Val Ala Ser
 610 615 620
 Ala Met Arg Gly Cys Lys Ala Ile Asn Leu Gly Gly Gly Val Thr Thr
 625 630 635 640
 Val Leu Thr Lys Asp Gly Met Thr Arg Gly Pro Cys Val Lys Phe Pro
 645 650 655
 Ser Leu Lys Arg Ala Gly Gln Cys Lys Leu Trp Leu Asp Ser Asp Glu
 660 665 670
 Gly Gln Glu Glu Met Lys Lys Ala Phe Asn Ser Thr Ser Arg Phe Ala
 675 680 685
 Arg Leu Gln His Leu Gln Thr Ala Leu Ala Gly Asp Leu Leu Phe Ile
 690 695 700
 Arg Phe Arg Thr Val Thr Gly Asp Ala Met Gly Met Asn Met Ile Ser
 705 710 715 720
 Lys Gly Val Glu Tyr Ala Leu Lys Gln Met Thr Glu Val Phe Gly Trp
 725 730 735
 Asp Asp Met Met Val Val Ser Val Ser Gly Asn Tyr Cys Thr Asp Lys

740

745

750

Lys Pro Ala Ala Val Asn Trp Ile Asn Gly Arg Gly Lys Ser Val Val
755 760 765

Ala Glu Ala Ser Ile Pro Lys Asp Ala Val Val Lys Val Leu Lys Ser
770 775 780

Ser Val Lys Ala Val Val Asp Val Asn Val Asn Lys Asn Leu Ile Gly
785 790 795 800

Ser Ala Met Ala Gly Ser Val Gly Gly Phe Asn Ala Gln Ala Ala Asn
805 810 815

Met Val Thr Ala Val Tyr Leu Ala Leu Gly Gln Asp Pro Ala Gln Asn
820 825 830

Val Glu Ser Ser Asn Cys Ile Thr Leu Met Thr Glu Thr Glu Asp Gly
835 840 845

Asp Leu Lys Val Ser Val Ser Met Pro Ser Ile Glu Val Gly Thr Ile
850 855 860

Gly Gly Gly Thr Ile Leu Asp Pro Gln Gly Ser Met Leu Glu Leu Leu
865 870 875 880

Gly Val Arg Gly Pro Ala Asp Val Pro Gly Glu Asn Ala Arg Gln Leu
885 890 895

Ala Lys Ile Val Ala Ser Ile Val Leu Ser Gly Glu Leu Ser Leu Val
900 905 910

Ser Ala Leu Ala Ala Gly His Leu Val Gln Ser His Met Gln His Asn
915 920 925

Arg Ala Ala Ala Lys Lys
930

<210> 334

<211> 628

<212> PRT

<213> Gossypium hirsutum

<400> 334

Met Glu Ala Ser Arg Arg Ser Ala Val Lys Pro Val Ile Val Leu Lys
1 5 10 15

Pro Ser Lys Arg Phe Pro Leu Val Glu Asp Thr Pro Gly Lys Ala Ser
 20 25 30

Asp Ala Leu Pro Leu Pro Leu Tyr Leu Thr Asn Ala Val Phe Phe Thr
 35 40 45

Leu Phe Phe Thr Val Val Tyr Phe Leu Leu Ser Arg Trp Arg Glu Lys
 50 55 60

Ile Arg Ala Ser Ile Pro Leu His Ala Val Thr Phe Pro Glu Ile Val
 65 70 75 80

Ala Ile Phe Ala Phe Val Ala Ser Leu Ile Tyr Leu Leu Gly Phe Phe
 85 90 95

Gly Ile Asp Phe Val Gln Ser Leu Ile Ile Arg Pro Ser Gly Asp Val
 100 105 110

Trp Ser Gly Glu Asp Tyr Glu Glu Glu Asn Glu Val Leu Leu His Glu
 115 120 125

Glu Asp Ala Arg Thr Val Pro Cys Gly Gln Ala Leu Asp Cys Ser Val
 130 135 140

Pro Ser Leu Pro His Met Ala Arg Asn Val Thr Ala Gln Arg Leu Phe
 145 150 155 160

Asp Glu Lys Pro Val Arg Val Ala Thr Glu Glu Asp Ala Arg Lys Val
 165 170 175

Ser Cys Gly Gln Ala Val Asp Cys Ser Leu His Ser Leu Pro Pro Arg
 180 185 190

Pro Pro Ile Val Thr Ser Gln Lys Leu Phe His Glu Lys Thr Val Ile
 195 200 205

Val Thr Thr Glu Glu Asp Glu Glu Ile Ile Lys Ser Val Val Ala Gly
 210 215 220

Thr Leu Pro Ser Tyr Ser Leu Glu Ser Lys Leu Gly Asp Cys Lys Arg
 225 230 235 240

Ala Ala Ala Ile Arg Arg Glu Ala Leu Gln Arg Leu Thr Gly Arg Ser
 245 250 255

Leu Ser Gly Leu Pro Leu Asp Gly Phe Asp Tyr Glu Ser Ile Leu Gly
 260 265 270

Gln Cys Cys Glu Met Pro Val Gly Tyr Val Gln Ile Pro Val Gly Ile
 275 280 285

Ala Gly Pro Leu Leu Leu Asn Gly Arg Glu Tyr Ser Val Pro Met Ala
 290 295 300

Thr Thr Glu Gly Cys Leu Val Ala Ser Thr Asn Arg Gly Cys Lys Ala
 305 310 315 320

Ile His Leu Ser Gly Gly Ala Thr Ser Ile Leu Leu Lys Asp Gly Met
 325 330 335

Thr Arg Ala Pro Val Val Arg Phe Ser Thr Ala Lys Arg Ala Ala Glu
 340 345 350

Leu Lys Phe Tyr Leu Glu Asp Pro Glu Asn Phe Asp Thr Leu Ala Val
 355 360 365

Val Phe Asn Arg Ser Ser Arg Phe Gly Arg Leu Gln Ser Ile Lys Cys
 370 375 380

Ala Ile Ala Gly Lys Asn Leu Tyr Leu Arg Phe Thr Cys Ser Thr Gly
 385 390 395 400

Asp Ala Met Gly Met Asn Met Val Ser Lys Gly Val Gln Asn Val Leu
 405 410 415

Asp Phe Leu Gln Thr Asp Phe Pro Asp Met Asp Val Ile Gly Ile Ser
 420 425 430

Gly Asn Phe Cys Ser Asp Lys Lys Pro Ala Ala Val Asn Trp Ile Glu
 435 440 445

Gly Arg Gly Lys Ser Val Val Cys Glu Ala Ile Ile Glu Gly Asp Val
 450 455 460

Val Arg Lys Val Leu Lys Thr Ser Val Glu Ser Leu Val Glu Leu Asn
 465 470 475 480

Met Leu Lys Asn Leu Thr Gly Ser Ala Met Ala Gly Ala Leu Gly Gly
 485 490 495

Phe Asn Ala His Ala Ser Asn Ile Val Thr Ala Ile Tyr Ile Ala Thr

500					505					510					
Gly	Gln	Asp	Pro	Ala	Gln	Asn	Val	Glu	Ser	Ser	His	Cys	Ile	Thr	Met
		515					520					525			
Met	Glu	Ala	Val	Asn	Asp	Gly	Lys	Asp	Leu	His	Ile	Ser	Val	Thr	Met
	530					535					540				
Pro	Ser	Ile	Glu	Val	Gly	Thr	Val	Gly	Gly	Gly	Thr	Gln	Leu	Ala	Ser
545					550					555					560
Gln	Ser	Ala	Cys	Leu	Asn	Leu	Leu	Gly	Val	Lys	Gly	Ala	Ser	Lys	Asp
				565					570					575	
Val	Ala	Gly	Ala	Asn	Ser	Arg	Met	Leu	Ala	Thr	Ile	Val	Thr	Gly	Ala
				580				585						590	
Val	Leu	Ala	Gly	Glu	Leu	Ser	Leu	Met	Ser	Ala	Leu	Ala	Ala	Gly	Gln
		595					600					605			
Leu	Val	Lys	Ser	His	Met	Lys	Tyr	Asn	Arg	Ser	Ser	Lys	Asp	Met	Ser
	610					615					620				
Asn	Leu	Ser	Ser												
625															
<210>	335														
<211>	585														
<212>	PRT														
<213>	Gossypium hirsutum														
<400>	335														
Met	Glu	Thr	His	Arg	Arg	Ser	Ser	Thr	Asn	Ser	Ile	Arg	Ser	His	Lys
1				5					10					15	
Pro	Ala	Arg	Pro	Ile	Ala	Leu	Glu	Asp	Asp	Ser	Thr	Lys	Ala	Ser	Asp
			20					25					30		
Ala	Leu	Pro	Leu	Pro	Leu	Tyr	Leu	Thr	Asn	Ala	Val	Phe	Phe	Thr	Leu
		35					40					45			
Phe	Phe	Ser	Ala	Val	Tyr	Phe	Leu	Leu	Cys	Arg	Trp	Arg	Glu	Lys	Ile
	50					55					60				
Arg	Ser	Ser	Thr	Pro	Leu	His	Val	Val	Thr	Phe	Ser	Glu	Ile	Val	Ala
65					70					75					80

Ile Leu Ala Ser Val Ala Ser Phe Ile Tyr Leu Leu Gly Phe Phe Gly
85 90 95

Ile Asp Phe Val Gln Ser Leu Val Leu Arg Pro Ser Ala Asp Val Trp
100 105 110

Ala Thr Glu Asp Asp Glu Val Glu Ser Glu Val Leu Leu Arg Asn Glu
115 120 125

Asp Ala Arg His Val Pro Cys Gly Gln Ala Leu Asp Arg Ser Ile Arg
130 135 140

Ser Leu Gln Pro Pro Glu Pro Ile Val Thr Ala Glu Lys Val Phe Asp
145 150 155 160

Glu Met Pro Val Thr Val Met Thr Glu Glu Asp Glu Glu Ile Ile Arg
165 170 175

Ser Val Val Cys Gly Met Thr Pro Ser Tyr Ser Leu Glu Ser Lys Leu
180 185 190

Asp Asp Cys Lys Arg Ala Ala Ala Ile Arg Arg Glu Ala Leu Gln Arg
195 200 205

Ile Thr Gly Lys Ser Leu Ser Gly Leu Pro Leu Asp Gly Phe Asp Tyr
210 215 220

Glu Ser Ile Leu Gly Gln Cys Cys Glu Met Pro Val Gly Tyr Glu Gln
225 230 235 240

Ile Pro Val Gly Ile Ala Gly Pro Leu Leu Leu Asn Gly Arg Glu Tyr
245 250 255

Ser Val Pro Met Ala Thr Thr Glu Gly Cys Leu Val Ala Ser Thr Asn
260 265 270

Arg Gly Cys Lys Ala Ile His Leu Ser Gly Gly Ala Thr Ser Val Leu
275 280 285

Leu Arg Asp Gly Met Thr Arg Ala Pro Val Val Arg Phe Gly Thr Ala
290 295 300

Lys Arg Ala Ala Asp Leu Lys Leu Tyr Leu Glu Asp Pro Glu Asn Phe
305 310 315 320

Glu Thr Leu Ala Cys Val Phe Asn Arg Ser Ser Arg Phe Ala Arg Leu
325 330 335

Gln Ser Ile Lys Cys Ala Ile Ala Gly Lys Asn Leu Tyr Leu Arg Phe
340 345 350

Ser Cys Phe Thr Gly Asp Ala Met Gly Met Asn Met Val Ser Lys Gly
355 360 365

Val Gln Asn Val Leu Asp Phe Leu Gln Thr Asp Phe Pro Asp Met Asp
370 375 380

Val Ile Gly Ile Ser Gly Asn Phe Cys Ser Asp Lys Lys Pro Ala Ala
385 390 395 400

Val Asn Trp Ile Glu Gly Arg Gly Lys Ser Val Val Cys Glu Ala Ile
405 410 415

Ile Asn Gly Asp Val Val Thr Lys Val Leu Lys Thr Ser Val Glu Ser
420 425 430

Leu Val Glu Leu Asn Met Leu Lys Asn Leu Thr Gly Ser Ala Met Ala
435 440 445

Gly Ala Leu Gly Gly Phe Asn Ala His Ala Ser Asn Ile Val Thr Ala
450 455 460

Val Tyr Ile Ala Thr Gly Gln Asp Pro Ala Gln Asn Val Glu Ser Ser
465 470 475 480

His Cys Ile Thr Met Met Glu Ala Val Asn Gly Gly Lys Asp Leu His
485 490 495

Val Ser Val Thr Met Pro Ser Ile Glu Val Gly Thr Val Gly Gly Gly
500 505 510

Thr Gln Leu Ala Ser Gln Ser Ala Cys Leu Asn Leu Leu Gly Val Lys
515 520 525

Gly Ala Ser Lys Glu Ser Pro Gly Ala Asn Ser Ile Leu Leu Ala Thr
530 535 540

Ile Val Ala Gly Ala Val Leu Ala Gly Glu Leu Ser Leu Met Ser Ala
545 550 555 560

Leu Ala Ala Gly Gln Leu Val Lys Ser His Met Lys Tyr Asn Arg Ser

565

570

575

Ser Lys Asp Val Ser Lys Val Ser Ser
580 585

<210> 336
<211> 1045
<212> PRT
<213> *Saccharomyces cerevisiae*

<400> 336

Met Ser Leu Pro Leu Lys Thr Ile Val His Leu Val Lys Pro Phe Ala
1 5 10 15

Cys Thr Ala Arg Phe Ser Ala Arg Tyr Pro Ile His Val Ile Val Val
20 25 30

Ala Val Leu Leu Ser Ala Ala Ala Tyr Leu Ser Val Thr Gln Ser Tyr
35 40 45

Leu Asn Glu Trp Lys Leu Asp Ser Asn Gln Tyr Ser Thr Tyr Leu Ser
50 55 60

Ile Lys Pro Asp Glu Leu Phe Glu Lys Cys Thr His Tyr Tyr Arg Ser
65 70 75 80

Pro Val Ser Asp Thr Trp Lys Leu Leu Ser Ser Lys Glu Ala Ala Asp
85 90 95

Ile Tyr Thr Pro Phe His Tyr Tyr Leu Ser Thr Ile Ser Phe Gln Ser
100 105 110

Lys Asp Asn Ser Thr Thr Leu Pro Ser Leu Asp Asp Val Ile Tyr Ser
115 120 125

Val Asp His Thr Arg Tyr Leu Leu Ser Glu Glu Pro Lys Ile Pro Thr
130 135 140

Glu Leu Val Ser Glu Asn Gly Thr Lys Trp Arg Leu Arg Asn Asn Ser
145 150 155 160

Asn Phe Ile Leu Asp Leu His Asn Ile Tyr Arg Asn Met Val Lys Gln
165 170 175

Phe Ser Asn Lys Thr Ser Glu Phe Asp Gln Phe Asp Leu Phe Ile Ile
180 185 190

Leu Ala Ala Tyr Leu Thr Leu Phe Tyr Thr Leu Cys Cys Leu Phe Asn
 195 200 205

Asp Met Arg Lys Ile Gly Ser Lys Phe Trp Leu Ser Phe Ser Ala Leu
 210 215 220

Ser Asn Ser Ala Cys Ala Leu Tyr Leu Ser Leu Tyr Thr Thr His Ser
 225 230 235 240

Leu Leu Lys Lys Pro Ala Ser Leu Leu Ser Leu Val Ile Gly Leu Pro
 245 250 255

Phe Ile Val Val Ile Ile Gly Phe Lys His Lys Val Arg Leu Ala Ala
 260 265 270

Phe Ser Leu Gln Lys Phe His Arg Ile Ser Ile Asp Lys Lys Ile Thr
 275 280 285

Val Ser Asn Ile Ile Tyr Glu Ala Met Phe Gln Glu Gly Ala Tyr Leu
 290 295 300

Ile Arg Asp Tyr Leu Phe Tyr Ile Ser Ser Phe Ile Gly Cys Ala Ile
 305 310 315 320

Tyr Ala Arg His Leu Pro Gly Leu Val Asn Phe Cys Ile Leu Ser Thr
 325 330 335

Phe Met Leu Val Phe Asp Leu Leu Leu Ser Ala Thr Phe Tyr Ser Ala
 340 345 350

Ile Leu Ser Met Lys Leu Glu Ile Asn Ile Ile His Arg Ser Thr Val
 355 360 365

Ile Arg Gln Thr Leu Glu Glu Asp Gly Val Val Pro Thr Thr Ala Asp
 370 375 380

Ile Ile Tyr Lys Asp Glu Thr Ala Ser Glu Pro His Phe Leu Arg Ser
 385 390 395 400

Asn Val Ala Ile Ile Leu Gly Lys Ala Ser Val Ile Gly Leu Leu Leu
 405 410 415

Leu Ile Asn Leu Tyr Val Phe Thr Asp Lys Leu Asn Ala Thr Ile Leu
 420 425 430

Asn Thr Val Tyr Phe Asp Ser Thr Ile Tyr Ser Leu Pro Asn Phe Ile
 435 440 445

Asn Tyr Lys Asp Ile Gly Asn Leu Ser Asn Gln Val Ile Ile Ser Val
 450 455 460

Leu Pro Lys Gln Tyr Tyr Thr Pro Leu Lys Lys Tyr His Gln Ile Glu
 465 470 475 480

Asp Ser Val Leu Leu Ile Ile Asp Ser Val Ser Asn Ala Ile Arg Asp
 485 490 495

Gln Phe Ile Ser Lys Leu Leu Phe Phe Ala Phe Ala Val Ser Ile Ser
 500 505 510

Ile Asn Val Tyr Leu Leu Asn Ala Ala Lys Ile His Thr Gly Tyr Met
 515 520 525

Asn Phe Gln Pro Gln Ser Asn Lys Ile Asp Asp Leu Val Val Gln Gln
 530 535 540

Lys Ser Ala Thr Ile Glu Phe Ser Glu Thr Arg Ser Met Pro Ala Ser
 545 550 555 560

Ser Gly Leu Glu Thr Pro Val Thr Ala Lys Asp Ile Ile Ile Ser Glu
 565 570 575

Glu Ile Gln Asn Asn Glu Cys Val Tyr Ala Leu Ser Ser Gln Asp Glu
 580 585 590

Pro Ile Arg Pro Leu Ser Asn Leu Val Glu Leu Met Glu Lys Glu Gln
 595 600 605

Leu Lys Asn Met Asn Asn Thr Glu Val Ser Asn Leu Val Val Asn Gly
 610 615 620

Lys Leu Pro Leu Tyr Ser Leu Glu Lys Lys Leu Glu Asp Thr Thr Arg
 625 630 635 640

Ala Val Leu Val Arg Arg Lys Ala Leu Ser Thr Leu Ala Glu Ser Pro
 645 650 655

Ile Leu Val Ser Glu Lys Leu Pro Phe Arg Asn Tyr Asp Tyr Asp Arg
 660 665 670

Val Phe Gly Ala Cys Cys Glu Asn Val Ile Gly Tyr Met Pro Ile Pro

675					680					685					
Val	Gly	Val	Ile	Gly	Pro	Leu	Ile	Ile	Asp	Gly	Thr	Ser	Tyr	His	Ile
690						695					700				
Pro	Met	Ala	Thr	Thr	Glu	Gly	Cys	Leu	Val	Ala	Ser	Ala	Met	Arg	Gly
705					710					715					720
Cys	Lys	Ala	Ile	Asn	Ala	Gly	Gly	Gly	Ala	Thr	Thr	Val	Leu	Thr	Lys
				725					730					735	
Asp	Gly	Met	Thr	Arg	Gly	Pro	Val	Val	Arg	Phe	Pro	Thr	Leu	Ile	Arg
			740					745					750		
Ser	Gly	Ala	Cys	Lys	Ile	Trp	Leu	Asp	Ser	Glu	Glu	Gly	Gln	Asn	Ser
		755					760					765			
Ile	Lys	Lys	Ala	Phe	Asn	Ser	Thr	Ser	Arg	Phe	Ala	Arg	Leu	Gln	His
	770					775					780				
Ile	Gln	Thr	Cys	Leu	Ala	Gly	Asp	Leu	Leu	Phe	Met	Arg	Phe	Arg	Thr
785					790					795					800
Thr	Thr	Gly	Asp	Ala	Met	Gly	Met	Asn	Met	Ile	Ser	Lys	Gly	Val	Glu
				805					810					815	
Tyr	Ser	Leu	Lys	Gln	Met	Val	Glu	Glu	Tyr	Gly	Trp	Glu	Asp	Met	Glu
			820					825					830		
Val	Val	Ser	Val	Ser	Gly	Asn	Tyr	Cys	Thr	Asp	Lys	Lys	Pro	Ala	Ala
		835					840					845			
Ile	Asn	Trp	Ile	Glu	Gly	Arg	Gly	Lys	Ser	Val	Val	Ala	Glu	Ala	Thr
	850					855					860				
Ile	Pro	Gly	Asp	Val	Val	Lys	Ser	Val	Leu	Lys	Ser	Asp	Val	Ser	Ala
865					870					875					880
Leu	Val	Glu	Leu	Asn	Ile	Ser	Lys	Asn	Leu	Val	Gly	Ser	Ala	Met	Ala
				885					890					895	
Gly	Ser	Val	Gly	Gly	Phe	Asn	Ala	His	Ala	Ala	Asn	Leu	Val	Thr	Ala
			900					905					910		
Leu	Phe	Leu	Ala	Leu	Gly	Gln	Asp	Pro	Ala	Gln	Asn	Val	Glu	Ser	Ser
		915					920					925			

Asn Cys Ile Thr Leu Met Lys Glu Val Asp Gly Asp Leu Arg Ile Ser
 930 935 940

Val Ser Met Pro Ser Ile Glu Val Gly Thr Ile Gly Gly Gly Thr Val
 945 950 955 960

Leu Glu Pro Gln Gly Ala Met Leu Asp Leu Leu Gly Val Arg Gly Pro
 965 970 975

His Pro Thr Glu Pro Gly Ala Asn Ala Arg Gln Leu Ala Arg Ile Ile
 980 985 990

Ala Cys Ala Val Leu Ala Gly Glu Leu Ser Leu Cys Ser Ala Leu Ala
 995 1000 1005

Ala Gly His Leu Val Gln Ser His Met Thr His Asn Arg Lys Thr
 1010 1015 1020

Asn Lys Ala Asn Glu Leu Pro Gln Pro Ser Asn Lys Gly Pro Pro
 1025 1030 1035

Cys Lys Thr Ser Ala Leu Leu
 1040 1045

<210> 337
 <211> 574
 <212> PRT
 <213> Solanum tuberosum

<400> 337

Met Asp Val Arg Arg Arg Pro Val Lys Pro Leu Tyr Pro Ser Glu His
 1 5 10 15

Ile Ser Ser Gly Glu Pro Leu Lys Pro His Asn Gln Asp Ser Ser Val
 20 25 30

Lys Ala Ser Asp Ala Leu Pro Leu Pro Leu Tyr Leu Thr Asn Gly Leu
 35 40 45

Phe Phe Thr Met Phe Phe Ser Val Met Tyr Phe Leu Leu His Arg Trp
 50 55 60

Arg Glu Lys Ile Arg Asn Gly Ile Pro Leu His Val Leu Asn Phe Ser
 65 70 75 80

Glu Leu Val Ala Met Val Ser Leu Ile Ala Ser Val Ile Tyr Leu Leu
 85 90 95

Gly Phe Phe Gly Ile Gly Phe Val Gln Ser Phe Val Ser Lys Gly Asn
 100 105 110

Asn Asp Ser Trp Asp Val Glu Asp Glu Ser Pro Glu Gln Phe Ile Asp
 115 120 125

Arg Thr Val Thr Pro Pro Pro Val Arg Arg Asn Ile Pro Met Lys Ser
 130 135 140

Val Pro Val Ala Glu Lys Thr Ala Gln Ile Ile Thr Pro Phe Ser Ser
 145 150 155 160

Glu Asp Asp Glu Val Val Ile Lys Ser Val Val Glu Gly Arg Ile Pro
 165 170 175

Ser Tyr Ser Leu Glu Ser Lys Leu Gly Asp Cys Lys Arg Ala Ala Phe
 180 185 190

Ile Arg Lys Glu Ala Leu Gln Arg Ser Ser Gly Lys Ser Leu Glu Gly
 195 200 205

Leu Pro Leu Asp Gly Phe Asp Tyr Glu Ser Ile Leu Gly Gln Cys Cys
 210 215 220

Glu Met Pro Ile Gly Tyr Ile Gln Ile Pro Val Gly Ile Ala Gly Pro
 225 230 235 240

Leu Leu Leu Asn Gly Lys Glu Phe Ser Val Pro Met Ala Thr Thr Glu
 245 250 255

Gly Cys Leu Val Ala Ser Thr Asn Arg Gly Cys Lys Ala Ile Tyr Val
 260 265 270

Ser Gly Gly Ala Thr Ser Val Leu Phe Arg Asp Ala Met Thr Arg Ala
 275 280 285

Pro Val Val Arg Phe Gly Ser Ala Lys Arg Ala Ala Glu Leu Lys Phe
 290 295 300

Phe Val Glu Asp Pro Met Asn Phe Glu Thr Leu Ser Val Val Phe Asn
 305 310 315 320

Lys Ser Ser Arg Phe Ala Arg Leu Gln Asn Ile Gln Cys Ala Ile Ala

<210> 338
 <211> 595
 <212> PRT
 <213> Solanum tuberosum

<400> 338

Met Asp Val Arg Arg Arg Ser Glu Lys Pro Val Tyr Pro Ser Lys Val
 1 5 10 15

Phe Gly Ala Asp Glu Lys Pro Leu Lys Pro His Asn Asn Gln Gln Gln
 20 25 30

Glu Asp Asn Asn Thr Leu Leu Ile Asp Ala Ser Asp Ala Leu Pro Leu
 35 40 45

Pro Leu Tyr Leu Thr Asn Gly Leu Phe Phe Thr Met Phe Phe Ser Val
 50 55 60

Met Tyr Phe Leu Leu Ser Arg Trp Arg Glu Lys Ile Arg Asn Ser Thr
 65 70 75 80

Pro Leu His Val Val Thr Leu Ser Glu Leu Gly Ala Ile Val Ser Leu
 85 90 95

Ile Ala Ser Val Ile Tyr Leu Leu Gly Phe Phe Gly Ile Gly Phe Val
 100 105 110

Gln Thr Phe Val Ser Arg Gly Asn Asn Asp Ser Trp Asp Glu Asn Asp
 115 120 125

Glu Glu Phe Leu Leu Lys Glu Asp Ser Arg Cys Gly Pro Ala Thr Thr
 130 135 140

Leu Gly Cys Ala Ile Pro Ala Pro Pro Ala Arg Gln Ile Ser Pro Met
 145 150 155 160

Ala Pro Pro Gln Pro Ala Met Ser Met Val Glu Lys Pro Ser Pro Leu
 165 170 175

Ile Thr Pro Ala Ser Ser Glu Glu Asp Glu Glu Ile Ile Asn Ser Val
 180 185 190

Val Gln Gly Lys Phe Pro Ser Tyr Ser Leu Val Ile Gln Leu Gly Asp
 195 200 205

Val Ser Ala Ala Ala Ser Leu Arg Lys Glu Val Met Gln Arg Ile Thr
210 215 220
Gly Lys Ser Leu Glu Gly Leu Pro Leu Glu Gly Phe Thr Tyr Glu Ser
225 230 235 240
Ile Leu Gly Gln Cys Cys Glu Met Pro Ile Gly Tyr Val Gln Ile Pro
245 250 255
Val Gly Ile Ala Gly Pro Leu Leu Leu Asn Gly Lys Glu Phe Ser Val
260 265 270
Pro Met Ala Thr Thr Glu Gly Cys Leu Val Ala Ser Thr Asn Arg Gly
275 280 285
Cys Lys Ala Ile Tyr Ala Ser Gly Gly Ala Thr Cys Ile Val Leu Arg
290 295 300
Asp Gly Met Thr Arg Ala Pro Cys Val Arg Phe Gly Thr Ala Lys Arg
305 310 315 320
Ala Ala Glu Leu Lys Phe Phe Val Glu Asp Pro Ile Lys Phe Glu Thr
325 330 335
Leu Ala Asn Val Phe Asn Gln Ser Ser Arg Phe Gly Arg Leu Gln Arg
340 345 350
Ile Gln Cys Ala Ile Ala Gly Lys Asn Leu Tyr Met Arg Phe Val Cys
355 360 365
Ser Thr Gly Asp Ala Met Gly Met Asn Met Val Ser Lys Gly Val Gln
370 375 380
Asn Val Leu Asp Tyr Leu Gln Asn Glu Tyr Pro Asp Met Asp Val Ile
385 390 395 400
Gly Ile Ser Gly Asn Phe Cys Ser Asp Lys Lys Pro Ala Ala Val Asn
405 410 415
Trp Ile Glu Gly Arg Gly Lys Ser Val Val Cys Glu Ala Ile Ile Thr
420 425 430
Glu Glu Val Val Lys Lys Val Leu Lys Thr Glu Val Ala Ala Leu Val
435 440 445
Glu Leu Asn Met Leu Lys Asn Leu Thr Gly Ser Ala Met Ala Gly Ala

450 455 460
 Leu Gly Gly Phe Asn Ala His Ala Ser Asn Ile Val Ser Ala Val Phe
 465 470 475 480
 Ile Ala Thr Gly Gln Asp Pro Ala Gln Asn Ile Glu Ser Ser His Cys
 485 490 495
 Ile Thr Met Met Glu Ala Val Asn Asp Gly Lys Asp Leu His Ile Ser
 500 505 510
 Val Thr Met Pro Ser Ile Glu Val Gly Thr Val Gly Gly Gly Thr Gln
 515 520 525
 Leu Ala Ser Gln Ser Ala Cys Leu Asn Leu Leu Gly Val Lys Gly Ala
 530 535 540
 Asn Arg Glu Ala Pro Gly Ser Asn Ala Arg Leu Leu Ala Thr Val Val
 545 550 555 560
 Ala Gly Ser Val Leu Ala Gly Glu Leu Ser Leu Met Ser Ala Ile Ser
 565 570 575
 Ala Gly Gln Leu Val Asn Ser His Met Lys Tyr Asn Arg Ser Thr Lys
 580 585 590
 Ala Ser Ser
 595

 <210> 339
 <211> 1053
 <212> PRT
 <213> Schizosaccharomyces pombe

 <400> 339
 Met Ile Tyr Lys Leu Ala Ala Arg Tyr Pro Ile Gln Val Ile Ala Ile
 1 5 10 15

 Val Gly Ile Leu Val Ser Met Ala Tyr Phe Ser Phe Leu Glu Ala Leu
 20 25 30

 Thr Gln Glu Asp Phe Pro Val Leu Ile Arg Ala Leu Lys Arg Phe Gly
 35 40 45

 Ile Leu Asp Gly Phe Pro Asn Thr Arg Leu Pro Asn Glu Met Ile Leu
 50 55 60

Lys Leu Ser Ser Val Gln Gly Glu Asp Ala Ser Val Trp Glu Gln Ile
65 70 75 80

Pro Ala Ala Glu Leu Gly Gly Glu Gly Phe Val Asp Phe Asp Ile Thr
85 90 95

Gln Trp Tyr Tyr Pro Ala Asn Ala Lys Val Asp Val Ala Gln Leu Val
100 105 110

Glu Pro Tyr Arg Asn Asp Cys Ile Phe His Asp Ala Ser Gly Ala Cys
115 120 125

His Phe Phe Phe Lys Glu Val Gly Asn Trp Thr Val Ser Ser Ile Ala
130 135 140

Leu Pro Ser Asn Leu Ala Asn Pro Pro Ile Asp Tyr Phe Leu Asp Ser
145 150 155 160

Ser Ser Thr Val Ile Gln Arg Ile Leu Pro Ala Ile Arg Glu His Gly
165 170 175

Ile Ser Trp Ser Trp Leu Leu Gln Leu Ile Ala Arg Thr Trp Met Asn
180 185 190

Thr Leu Lys Ile Ala Ser Gln Ala Ser Lys Thr Glu Leu Leu Ile Val
195 200 205

Gly Thr Ala Tyr Ala Cys Met Leu Ile Ser Ile Val Ser Leu Tyr Leu
210 215 220

Lys Met Arg Arg Leu Gly Ser Lys Phe Trp Leu Phe Phe Ser Val Leu
225 230 235 240

Leu Ser Thr Leu Phe Ser Val Gln Phe Ala Met Thr Leu Val Arg Ala
245 250 255

Ser Gly Val Arg Ile Ser Leu Val Ser Leu Ile Glu Ser Leu Pro Phe
260 265 270

Leu Ile Asn Val Val Ala Leu Asp Lys Ala Ala Glu Leu Thr Arg Gln
275 280 285

Val Ile Thr Arg Cys Ser Val Ser Asp Ser His Ser Pro Met His Glu
290 295 300

Asp Ile Ala Lys Ala Cys Arg Asn Ala Ala Pro Pro Ile Leu Arg His
 305 310 315 320

Phe Ser Phe Gly Ile Val Val Leu Ala Ile Phe Ser Tyr Cys Asn Phe
 325 330 335

Gly Ile Lys Gln Phe Phe Leu Phe Ala Ala Val Met Ile Tyr Asp Leu
 340 345 350

Leu Leu Leu Phe Ser Phe Phe Val Ala Ile Leu Thr Leu Lys Leu Glu
 355 360 365

Met Arg Arg Tyr Asn Ala Lys Asp Asp Val Arg Lys Val Leu Ile Glu
 370 375 380

Glu Gly Leu Ser Glu Ser Thr Ala Arg His Val Ala Asp Gly Asn Asp
 385 390 395 400

Ser Ser Ala Thr Thr Ser Ala Gly Ser Arg Tyr Phe Lys Val Arg Tyr
 405 410 415

Gly Thr Lys Ile Ile Leu Phe Ile Phe Ile Ala Phe Asn Leu Phe Glu
 420 425 430

Leu Cys Ser Ile Pro Phe Lys His Tyr Ala Ala Thr Ser Ala Ala Ala
 435 440 445

Ala Arg Leu Ile Pro Leu Val Arg Ser Gln Tyr Pro Asp Phe Lys Ser
 450 455 460

Gln Arg Leu Leu Asp Asp Gly Val Phe Asp Asp Val Leu Ser Ala Ile
 465 470 475 480

Ser Ser Met Ser Asn Ile Glu Ser Pro Ser Val Arg Leu Leu Pro Ala
 485 490 495

Val Phe Tyr Gly Ala Glu Leu Ser Ser Thr Ser Phe Leu Ser Thr Ile
 500 505 510

His Ser Phe Ile Asn Asn Trp Ser His Tyr Ile Ser Ala Ser Phe Leu
 515 520 525

Ser Lys Trp Ile Val Cys Ala Leu Ser Leu Ser Ile Ala Val Asn Val
 530 535 540

Phe Leu Leu Asn Ala Ala Arg Leu Asn Ser Ile Lys Glu Glu Pro Glu

545		550		555		560									
Lys	Lys	Val	Val	Glu	Lys	Val	Val	Glu	Val	Val	Lys	Tyr	Ile	Pro	Ser
				565					570					575	
Ser	Asn	Ser	Ser	Ser	Ile	Asp	Asp	Ile	Gln	Lys	Asp	Glu	Ile	Ala	Gln
			580					585					590		
Glu	Ser	Val	Val	Arg	Ser	Leu	Glu	Glu	Cys	Ile	Thr	Leu	Tyr	Asn	Asn
		595					600					605			
Gly	Gln	Ile	Ser	Thr	Leu	Asn	Asp	Glu	Glu	Val	Val	Gln	Leu	Thr	Leu
	610					615					620				
Ala	Lys	Lys	Ile	Pro	Leu	Tyr	Ala	Leu	Glu	Arg	Val	Leu	Lys	Asp	Val
625					630					635					640
Thr	Arg	Ala	Val	Val	Ile	Arg	Arg	Thr	Val	Val	Ser	Arg	Ser	Ser	Arg
			645						650					655	
Thr	Lys	Thr	Leu	Glu	Ser	Ser	Asn	Cys	Pro	Val	Tyr	His	Tyr	Asp	Tyr
			660					665					670		
Ser	Arg	Val	Leu	Asn	Ala	Cys	Cys	Glu	Asn	Val	Ile	Gly	Tyr	Met	Pro
		675					680					685			
Leu	Pro	Leu	Gly	Val	Ala	Gly	Pro	Leu	Ile	Ile	Asp	Gly	Lys	Pro	Phe
	690					695					700				
Tyr	Ile	Pro	Met	Ala	Thr	Thr	Glu	Gly	Ala	Leu	Val	Ala	Ser	Thr	Met
705					710					715					720
Arg	Gly	Cys	Lys	Ala	Ile	Asn	Ala	Gly	Gly	Gly	Ala	Val	Thr	Val	Leu
				725					730					735	
Thr	Arg	Asp	Gln	Met	Ser	Arg	Gly	Pro	Cys	Val	Ala	Phe	Pro	Asp	Leu
			740					745					750		
Thr	Arg	Ala	Gly	Arg	Ala	Lys	Ile	Trp	Leu	Asp	Ser	Pro	Glu	Gly	Gln
		755					760					765			
Glu	Val	Met	Lys	Lys	Ala	Phe	Asn	Ser	Thr	Ser	Arg	Phe	Ala	Arg	Leu
	770					775					780				
Gln	His	Ile	Lys	Thr	Ala	Leu	Ala	Gly	Thr	Arg	Leu	Phe	Ile	Arg	Phe
785					790					795					800

Cys Thr Ser Thr Gly Asp Ala Met Gly Met Asn Met Ile Ser Lys Gly
805 810 815

Val Glu His Ala Leu Val Val Met Ser Asn Asp Ala Gly Phe Asp Asp
820 825 830

Met Gln Val Ile Ser Val Ser Gly Asn Tyr Cys Thr Asp Lys Lys Pro
835 840 845

Ala Ala Ile Asn Trp Ile Asp Gly Arg Gly Lys Ser Val Ile Ala Glu
850 855 860

Ala Ile Ile Pro Gly Asp Ala Val Lys Ser Val Leu Lys Thr Thr Val
865 870 875 880

Glu Asp Leu Val Lys Leu Asn Val Asp Lys Asn Leu Ile Gly Ser Ala
885 890 895

Met Ala Gly Ser Val Gly Gly Phe Asn Ala His Ala Ala Asn Ile Val
900 905 910

Thr Ala Val Tyr Leu Ala Thr Gly Gln Asp Pro Ala Gln Asn Val Glu
915 920 925

Ser Ser Asn Cys Ile Thr Leu Met Asp Asn Val Asp Gly Asn Leu Gln
930 935 940

Leu Ser Val Ser Met Pro Ser Ile Glu Val Gly Thr Ile Gly Gly Gly
945 950 955 960

Thr Val Leu Glu Pro Gln Gly Ala Met Leu Asp Leu Leu Gly Val Arg
965 970 975

Gly Ala His Met Thr Ser Pro Gly Asp Asn Ser Arg Gln Leu Ala Arg
980 985 990

Val Val Ala Ala Ala Val Met Ala Gly Glu Leu Ser Leu Cys Ser Ala
995 1000 1005

Leu Ala Ser Gly His Leu Val Lys Ser His Ile Gly Leu Asn Arg
1010 1015 1020

Ser Ala Leu Asn Thr Pro Ala Met Asp Ser Ser Ala Lys Lys Pro
1025 1030 1035

Ala Thr Asp Ala Leu Lys Ser Val Asn Ser Arg Val Pro Gly Arg
 1040 1045 1050

<210> 340
 <211> 856
 <212> PRT
 <213> Blattella germanica

<400> 340

Met Val Gly Arg Leu Phe Arg Ala His Gly Gln Phe Cys Ala Ser His
 1 5 10 15

Pro Trp Glu Val Ile Val Ala Thr Leu Thr Leu Thr Val Cys Met Leu
 20 25 30

Thr Val Asp Gln Arg Pro Leu Gly Leu Pro Pro Gly Trp Gly His Asn
 35 40 45

Cys Ile Thr Leu Glu Glu Tyr Asn Ala Ala Asp Met Ile Val Met Thr
 50 55 60

Leu Ile Arg Cys Val Ala Val Leu Tyr Ser Tyr Tyr Gln Phe Cys His
 65 70 75 80

Leu Gln Lys Leu Gly Ser Lys Tyr Ile Leu Gly Ile Ala Gly Leu Phe
 85 90 95

Thr Val Phe Ser Ser Phe Val Phe Ser Ser Ser Val Ile Asn Phe Leu
 100 105 110

Gly Ser Asp Val Ser Asp Leu Lys Asp Ala Leu Phe Phe Phe Leu Leu
 115 120 125

Leu Ile Asp Leu Ser Lys Ala Thr Val Leu Ala Gln Phe Ala Leu Ser
 130 135 140

Ser Arg Ser Gln Asp Glu Val Lys His Asn Ile Ala Arg Gly Ile Ala
 145 150 155 160

Met Leu Gly Pro Thr Ile Thr Leu Asp Thr Val Val Glu Thr Leu Val
 165 170 175

Ile Gly Val Gly Met Leu Ser Gly Val Arg Arg Leu Glu Val Leu Cys
 180 185 190

Cys Phe Ala Cys Met Ser Val Ile Val Asn Tyr Val Val Phe Met Thr

195	200	205
Phe Tyr Pro Ala Cys Leu Ser Leu Ile Leu Glu Leu Ser Arg Ser Gly 210 215 220		
Glu Ser Gly Arg Pro Ala Trp His Asp Lys Ser Leu Ile Ile Lys Ala 225 230 235 240		
Leu His Glu Glu Asp Gln Lys Pro Asn Pro Val Val Gln Arg Val Lys 245 250 255		
Val Ile Met Ser Ala Gly Leu Met Leu Val His Ala His Arg Trp Val 260 265 270		
Arg Cys Leu Ser Ile Ala Leu Trp Pro Asp Leu Thr Ser Leu Arg Tyr 275 280 285		
Phe Cys Thr His Cys Asp Thr Gly Val Ser Tyr Ser Arg Trp Ser Phe 290 295 300		
Ala Ser Glu Gly Glu Glu Leu Pro Thr Val Lys Leu Val Thr Gly Asp 305 310 315 320		
Ser Val Val Asn Ser Asn Ser Thr Asp Asp Ala Gln Leu His Tyr Tyr 325 330 335		
Ile Met Arg Trp Leu Thr Val Ser Ala Asp His Ile Val Ile Leu Ile 340 345 350		
Leu Leu Leu Ala Leu Ala Val Lys Phe Val Phe Phe Glu Thr Arg Asp 355 360 365		
Glu Leu Thr Thr Thr Arg Gly Met Asp Gly Trp Val Glu Val Ser Ser 370 375 380		
Pro Val Glu His Lys Tyr Val Gln Thr Glu Gln Pro Ser Cys Ser Ala 385 390 395 400		
Pro Glu Gln Pro Leu Glu Glu Pro Pro Ala Ser Asn Arg Ser Ile Asp 405 410 415		
Glu Cys Leu Ser Val Cys Lys Ser Asp Val Gly Ala Gln Ala Leu Ser 420 425 430		
Asp Cys Glu Val Met Ala Leu Val Thr Ser Gly His Ile Ala Gly Tyr 435 440 445		

Gln Leu Glu Lys Val Val Arg Asn Pro Glu Arg Gly Val Gly Ile Arg
 450 455 460

Arg Gln Ile Leu Thr Lys Thr Ala Asp Leu Lys Asp Ala Leu Asp Asn
 465 470 475 480

Leu Pro Tyr Lys Asn Tyr Asp Tyr Leu Lys Val Met Gly Ala Cys Cys
 485 490 495

Glu Asn Val Ile Gly Tyr Met Pro Val Pro Val Gly Val Ala Gly Pro
 500 505 510

Leu Asn Leu Asp Gly Arg Leu Val His Val Pro Leu Ala Thr Thr Glu
 515 520 525

Gly Cys Leu Val Ala Ser Thr Asn Arg Gly Met Arg Ala Leu Met Arg
 530 535 540

Cys Gly Val Thr Ser Arg Ile Val Ala Asp Gly Met Thr Arg Gly Pro
 545 550 555 560

Val Val Arg Phe Pro Asn Ile Asp Arg Ala Ser Glu Ala Met Leu Trp
 565 570 575

Met Gln Val Pro Tyr Asn Phe Glu Gln Ile Lys Lys Asn Phe Asp Ser
 580 585 590

Thr Ser Arg Phe Ala Arg Leu Ser Lys Ile His Ile Arg Val Ala Gly
 595 600 605

Arg His Leu Phe Ile Arg Phe Ile Ala Thr Thr Gly Asp Ala Met Gly
 610 615 620

Met Asn Met Leu Ser Lys Gly Thr Glu Val Ala Leu Ala Tyr Val Gln
 625 630 635 640

Gln Val Tyr Pro Asp Met Glu Ile Leu Ser Leu Ser Gly Asn Phe Cys
 645 650 655

Thr Asp Lys Lys Pro Ala Ala Val Asn Trp Ile Glu Gly Arg Gly Lys
 660 665 670

Ser Val Val Cys Glu Ala Ile Val Pro Ala Asp Ile Ile Lys Ser Val
 675 680 685

Leu Lys Thr Ser Val Gln Ala Leu Met Asp Val Asn Ile Thr Lys Asn
690 695 700

Leu Ile Gly Ser Ala Val Ala Gly Ser Ile Gly Gly Phe Asn Ala His
705 710 715 720

Ala Ala Asn Ile Val Thr Ala Ile Phe Ile Ala Thr Gly Gln Asp Pro
725 730 735

Ala Gln Asn Val Gly Ser Ser Asn Cys Met Thr Leu Met Glu Pro Trp
740 745 750

Gly Glu Asp Gly Lys Asp Leu Tyr Val Ser Cys Thr Met Pro Ser Ile
755 760 765

Glu Ile Gly Thr Ile Gly Gly Gly Thr Val Leu Pro Pro Gln Ala Ala
770 775 780

Cys Leu Asp Met Leu Gly Val Arg Gly Ala Asn Glu Met Cys Pro Gly
785 790 795 800

Glu Asn Ala Asn Thr Leu Ala Arg Ile Val Cys Gly Thr Val Leu Ala
805 810 815

Gly Glu Leu Ser Leu Met Ser Ala Leu Ala Ala Gly His Leu Val Lys
820 825 830

Ser His Met Arg His Asn Arg Ser Ser Val Ser Thr Ser Gly Ser Glu
835 840 845

Pro Ser Thr Pro Ala Cys Lys Ser
850 855

<210> 341
<211> 59
<212> PRT
<213> Solanum tuberosum

<400> 341

Met Asp Val Arg Arg Arg Pro Val Lys Pro Leu Tyr Thr Ser Lys Asp
1 5 10 15

Ala Ser Ala Gly Glu Pro Leu Lys Gln Glu Val Ser Ser Pro Lys Ala
20 25 30

Ser Tyr Ala Leu Pro Leu Pro Leu Tyr Leu Thr Thr Gly Leu Phe Phe

35

40

45

Thr Met Phe Ser Leu Leu Cys Ile Phe Phe Ser
50 55

<210> 342

<211> 82

<212> PRT

<213> Solanum tuberosum

<400> 342

Met Asp Val Cys Arg Arg Pro Val Lys Pro Leu Tyr Thr Ser Lys Asp
1 5 10 15

Ala Phe Ala Gly Glu Pro Leu Lys Gln Glu Val Ser Ser Pro Lys Ala
20 25 30

Ser Asp Ala Leu Pro Leu Pro Leu Tyr Leu Thr Thr Gly Leu Phe Phe
35 40 45

Thr Met Phe Phe Ser Val Met Tyr Phe Leu Leu Val Arg Trp Arg Glu
50 55 60

Lys Ile Arg Asn Ser Ile Pro Leu His Val Val Thr Leu Ser Glu Leu
65 70 75 80

Leu Ala

<210> 343

<211> 82

<212> PRT

<213> Solanum tuberosum

<400> 343

Met Asp Val Arg Arg Arg Pro Val Lys Pro Leu Tyr Thr Ser Lys Asp
1 5 10 15

Ala Ser Ala Gly Glu Pro Leu Lys Gln Glu Val Ser Ser Pro Lys Ala
20 25 30

Ser Asp Ala Leu Pro Leu Pro Leu Tyr Leu Thr Thr Gly Leu Phe Phe
35 40 45

Thr Met Phe Phe Ser Val Met Tyr Phe Leu Leu Val Arg Trp Arg Glu
50 55 60

Lys Ile Arg Asn Ser Ile Pro Leu His Val Val Thr Leu Ser Glu Leu
65 70 75 80

Leu Ala

<210> 344
<211> 82
<212> PRT
<213> Solanum tuberosum

<400> 344

Met Asp Val Arg Arg Arg Pro Val Lys Pro Leu Tyr Thr Ser Lys Asp
1 5 10 15

Ala Ser Ala Gly Glu Pro Leu Lys Gln Glu Val Ser Ser Pro Lys Ala
20 25 30

Ser Asp Ala Leu Pro Leu Pro Leu Tyr Leu Thr Thr Arg Leu Phe Phe
35 40 45

Thr Met Phe Phe Ser Val Met Tyr Phe Leu Leu Val Arg Trp Arg Glu
50 55 60

Lys Ile Arg Asn Ser Ile Pro Phe His Val Val Thr Leu Ser Glu Leu
65 70 75 80

Leu Ala

<210> 345
<211> 82
<212> PRT
<213> Solanum tuberosum

<400> 345

Met Asp Val Arg Arg Arg Pro Val Lys Pro Leu Tyr Thr Ser Lys Asp
1 5 10 15

Ala Ser Ala Gly Glu Pro Leu Lys Gln Glu Val Ser Ser Pro Lys Ala
20 25 30

Ser Asp Ala Leu Pro Leu Pro Leu Tyr Leu Thr Thr Gly Leu Phe Phe
35 40 45

Thr Met Phe Phe Ser Val Met Tyr Phe Leu Leu Val Arg Trp Arg Glu
50 55 60

Lys Ile Arg Asn Ser Ile Pro Leu His Val Val Thr Leu Ser Glu Leu
65 70 75 80

Leu Ala

<210> 346
<211> 82
<212> PRT
<213> Solanum tuberosum

<400> 346

Met Asp Val Arg Arg Arg Pro Val Lys Pro Leu Tyr Thr Ser Lys Asp
1 5 10 15

Ala Ser Ala Gly Glu Pro Leu Lys Gln Glu Val Ser Ser Pro Lys Ala
20 25 30

Ser Asp Ala Leu Pro Leu Pro Leu Tyr Leu Thr Thr Gly Leu Phe Phe
35 40 45

Thr Met Phe Phe Ser Val Met Tyr Phe Leu Leu Ile Arg Trp Arg Glu
50 55 60

Lys Ile Arg Asn Ser Ile Pro Leu His Ala Val Thr Leu Ser Glu Leu
65 70 75 80

Leu Ala

<210> 347
<211> 277
<212> PRT
<213> Sphaceloma manihoticola

<400> 347

Met Ala Ala Gly Phe Pro Gly Tyr Ala Leu Glu Lys Thr Leu Glu Asp
1 5 10 15

Lys Thr Arg Ala Val Lys Ile Arg Arg Ala Met Ile Ala Arg Thr Pro
20 25 30

Ala Thr Thr Lys His Ser Arg Leu Leu Glu Ser Ser Asn Leu Pro Tyr
35 40 45

Gln His Phe Asp Tyr Asp Arg Val Phe Gly Ala Cys Cys Glu Asn Val
50 55 60

Ile Gly Tyr Met Pro Leu Pro Val Gly Val Ala Gly Pro Leu Thr Ile
65 70 75 80

Asp Gly Glu Ser Tyr Phe Leu Pro Met Ala Thr Thr Glu Gly Val Leu
85 90 95

Val Ala Ser Thr Ser Arg Gly Cys Lys Ala Ile Asn Ala Gly Gly Gly
100 105 110

Ala Val Thr Val Leu Thr Ala Asp Gly Met Thr Arg Gly Pro Cys Val
115 120 125

Gly Phe Glu Thr Leu Ala Arg Ala Ala Ala Ala Lys Leu Trp Leu
130 135 140

Asp Ser Glu Glu Gly Gln Lys Val Met Lys Asp Ala Phe Asn Ser Thr
145 150 155 160

Ser Arg Phe Ala Arg Leu Gln Gln Leu Lys Thr Ser Leu Ala Gly Thr
165 170 175

Tyr Val Tyr Ile Arg Phe Lys Thr Thr Thr Gly Glu Ala Met Gly Met
180 185 190

Asn Met Ile Ser Lys Gly Val Glu Lys Ala Leu Asp Val Met Ala Lys
195 200 205

Glu Ser Gly Phe Glu Asp Met Ala Ile Ile Ser Val Ser Gly Asn Phe
210 215 220

Cys Thr Asp Lys Lys Pro Ala Ala Ile Asn Trp Ile Asp Gly Arg Gly
225 230 235 240

Lys Ser Val Val Ala Glu Ala Ile Ile Pro Gly Asp Val Val Arg Ser
245 250 255

Val Leu Lys Ser Asp Val Asn Ala Leu Val Glu Leu Asn Val Ser Lys
260 265 270

Asn Leu Ile Gly Ser
275

<210> 348
<211> 976
<212> PRT

<213> Gibberella fujikuroi

<400> 348

Met Asp His Glu Gly Cys Gln Gly Gln His Pro Gln Gln Cys Cys Gln
1 5 10 15

Trp Val Ser Asn Ala Trp Ser Glu Phe Leu Asp Leu Leu Lys Asn Ala
20 25 30

Glu Thr Leu Asp Ile Val Ile Met Leu Leu Gly Tyr Ile Ala Met His
35 40 45

Leu Thr Phe Val Ser Leu Phe Leu Ser Met Arg Lys Met Gly Ser Lys
50 55 60

Phe Trp Leu Gly Ile Cys Thr Leu Phe Ser Ser Val Phe Ala Phe Leu
65 70 75 80

Phe Gly Leu Val Val Thr Thr Lys Leu Gly Val Pro Ile Ser Val Ile
85 90 95

Leu Leu Ser Glu Gly Leu Pro Phe Leu Val Val Thr Ile Gly Phe Glu
100 105 110

Lys Asn Ile Val Leu Thr Arg Ala Val Met Ser His Ala Ile Glu His
115 120 125

Arg Arg Ile Gln Ala Gln Asn Ser Lys Ser Gly Lys Arg Ser Pro Asp
130 135 140

Gly Ser Thr Gln Asn Met Ile Gln Tyr Ala Val Gln Ala Ala Ile Lys
145 150 155 160

Glu Lys Gly Phe Glu Ile Ile Arg Asp Tyr Ala Ile Glu Ile Val Ile
165 170 175

Leu Val Ile Gly Ala Ala Ser Gly Val Gln Gly Gly Leu Gln Gln Phe
180 185 190

Cys Phe Leu Ala Ala Trp Thr Leu Phe Phe Asp Phe Ile Leu Leu Phe
195 200 205

Thr Phe Tyr Thr Ala Ile Leu Ser Ile Lys Leu Arg Ser Thr Val Ser
210 215 220

Ser Val Met Ser Ile Cys Val Trp Pro Leu Arg Met Met Ala Ser Arg

225		230		235		240
Arg Val Ala Glu Asn Val Ala Lys Gly Asp Asp Glu Leu Asn Arg Val						
	245			250		255
Arg Gly Asp Ala Pro Leu Phe Gly Arg Lys Ser Ser Ser Ile Pro Lys						
	260			265		270
Phe Lys Val Leu Met Ile Leu Gly Phe Ile Phe Val Asn Ile Val Asn						
	275			280		285
Ile Cys Ser Ile Pro Phe Arg Asn Pro Ser Ser Met Ser Thr Ile Arg						
	290			295		300
Thr Trp Ala Ser Ser Leu Gly Gly Val Ile Ala Pro Leu Ser Val Asp						
305		310		315		320
Pro Phe Lys Val Ala Ser Asn Gly Leu Asp Ala Ile Leu Pro Thr Ala						
	325			330		335
Lys Ser Asn Asn Arg Pro Thr Leu Val Thr Val Leu Thr Pro Ile Lys						
	340			345		350
Tyr Glu Leu Glu Tyr Pro Ser Ile His Tyr Ala Leu Gly Ser Ala Ala						
	355			360		365
Ser Asn Pro Ala Tyr Asn Asp Ala Phe His His His Phe Gln Gly Tyr						
	370			375		380
Gly Val Gly Gly Arg Met Val Gly Gly Ile Leu Lys Ser Leu Glu Asp						
385		390		395		400
Pro Val Leu Ser Lys Trp Ile Val Ile Ala Leu Ala Leu Ser Val Ala						
	405			410		415
Leu Asn Gly Tyr Leu Phe Asn Val Ala Arg Trp Gly Ile Lys Asp Pro						
	420			425		430
Asn Val Pro Glu His Asn Ile Asp Arg Asn Glu Leu Ala Arg Ala Arg						
	435			440		445
Glu Phe Asn Asp Thr Gly Ser Ala Thr Leu Pro Leu Gly Glu Tyr Val						
	450			455		460
Pro Pro Thr Pro Met Arg Thr Gln Pro Ser Thr Pro Ala Ile Thr Asp						
465		470		475		480

Asp Glu Ala Glu Gly Leu His Met Thr Lys Ala Arg Pro Ala Asn Leu
485 490 495

Pro Asn Arg Ser Asn Glu Glu Leu Glu Lys Leu Leu Ser Glu Asn Ala
500 505 510

Leu Arg Glu Met Thr Asp Glu Glu Val Ile Ser Leu Ser Met Arg Gly
515 520 525

Lys Ile Pro Gly Tyr Ala Leu Glu Lys Thr Leu Gly Asp Phe Thr Arg
530 535 540

Ala Val Lys Ile Arg Arg Ser Ile Ile Ala Arg Asn Lys Ala Ala Ala
545 550 555 560

Asp Ile Thr His Ser Leu Asp Arg Ser Lys Leu Pro Tyr Glu Asn Tyr
565 570 575

Asn Trp Glu Arg Phe Phe Gly Ala Cys Cys Glu Asn Val Ile Gly Tyr
580 585 590

Met Pro Leu Pro Val Gly Val Ala Gly Pro Leu Val Ile Asp Gly Gln
595 600 605

Ser Tyr Phe Ile Pro Met Ala Thr Thr Glu Gly Val Leu Val Ala Ser
610 615 620

Ala Ser Arg Gly Cys Lys Ala Ile Asn Ser Gly Gly Gly Ala Ile Thr
625 630 635 640

Val Leu Thr Ala Asp Gly Met Thr Arg Gly Pro Cys Val Ala Phe Glu
645 650 655

Thr Leu Glu Arg Ala Gly Ala Ala Lys Leu Trp Leu Asp Ser Glu Ala
660 665 670

Gly Gln Asp Met Met Lys Lys Ala Phe Asn Ser Thr Ser Arg Phe Ala
675 680 685

Arg Leu Gln Ser Met Lys Thr Ala Leu Ala Gly Thr Asn Leu Tyr Ile
690 695 700

Arg Phe Lys Thr Thr Thr Gly Asp Ala Met Gly Met Asn Met Ile Ser
705 710 715 720

Lys Gly Val Glu His Ala Leu Ser Val Met Ala Asn Asp Gly Gly Phe
725 730 735

Asp Asp Met Gln Ile Ile Ser Val Ser Gly Asn Tyr Cys Thr Asp Lys
740 745 750

Lys Ala Ala Ala Leu Asn Trp Ile Asp Gly Arg Gly Lys Gly Val Val
755 760 765

Ala Glu Ala Ile Ile Pro Gly Glu Val Val Arg Ser Val Leu Lys Ser
770 775 780

Asp Val Asp Ser Leu Val Glu Leu Asn Val Ala Lys Asn Leu Ile Gly
785 790 795 800

Ser Ala Met Ala Gly Ser Val Gly Gly Phe Asn Ala His Ala Ala Asn
805 810 815

Ile Val Ala Ala Ile Phe Leu Ala Thr Gly Gln Asp Pro Ala Gln Val
820 825 830

Val Glu Ser Ala Asn Cys Ile Thr Ile Met Lys Asn Leu Asn Gly Ala
835 840 845

Leu Gln Ile Ser Val Ser Met Pro Ser Leu Glu Val Gly Thr Leu Gly
850 855 860

Gly Gly Thr Ile Leu Glu Pro Gln Gly Ala Met Leu Asp Ile Leu Gly
865 870 875 880

Val Arg Gly Ser His Pro Thr Asn Pro Gly Asp Asn Ala Arg Arg Leu
885 890 895

Ala Arg Ile Ile Gly Ala Ala Val Leu Ala Gly Glu Leu Ser Leu Cys
900 905 910

Ser Ala Leu Ala Ala Gly His Leu Val Arg Ala His Met Gln His Asn
915 920 925

Arg Ser Ala Ala Pro Ser Arg Ser Thr Thr Pro Gly Ser Ser His Asp
930 935 940

Ala Arg Leu Thr Gly His Asp Gln Cys Pro Arg Ala Leu Ser Val Asn
945 950 955 960

Asn Val Asp Glu Arg Arg Arg Tyr Ser Glu Val Lys Ala Ile Asp Glu
 965 970 975

<210> 349
 <211> 244
 <212> PRT
 <213> Rattus norvegicus

<220>
 <221> MISC_FEATURE
 <222> (1)..(244)
 <223> x equals unknown

<400> 349

Pro Ile Arg Ser Pro Lys Arg Gly Thr Ser Met Gly Met Asn Met Ile
 1 5 10 15

Ser Lys Gly Thr Glu Lys Ala Leu Leu Lys Leu Gln Glu Phe Phe Pro
 20 25 30

Glu Leu Gln Ile Leu Ala Val Ser Gly Asn Tyr Cys Thr Asp Lys Lys
 35 40 45

Pro Ala Ala Ile Asn Trp Ile Glu Gly Arg Gly Lys Thr Val Val Cys
 50 55 60

Glu Ala Val Ile Pro Ala Lys Val Val Arg Glu Val Leu Lys Ser Thr
 65 70 75 80

Thr Glu Ala Met Val Asp Val Asn Ile Asn Lys Asn Leu Val Gly Ser
 85 90 95

Ala Met Ala Gly Ser Ile Gly Gly Tyr Asn Ala His Ala Ala Asn Ile
 100 105 110

Val Thr Ala Ile Tyr Ile Ala Cys Ala Gln Asp Ala Ala Gln Asn Val
 115 120 125

Gly Ser Ser Asn Cys Ile Thr Leu Met Glu Ala Ser Gly Pro Xaa Xaa
 130 135 140

Glu Asp Leu Xaa Xaa Ser Xaa Xaa Met Pro Ser Ile Glu Ile Gly Thr
 145 150 155 160

Val Gly Gly Gly Thr Asn Leu Leu Pro Gln Gln Ala Cys Leu Gln Met
 165 170 175

Leu Gly Val Gln Gly Ala Cys Lys Asp Asn Pro Gly Glu Asn Ala Arg
180 185 190

Gln Leu Ala Arg Ile Val Cys Gly Thr Val Met Ala Gly Glu Leu Ser
195 200 205

Leu Met Ala Ala Leu Ala Ala Gly His Leu Val Arg Ser His Met Val
210 215 220

His Asn Arg Ser Lys Ile Asn Leu Gln Asp Leu Gln Gly Thr Cys Thr
225 230 235 240

Lys Lys Ala Ala

<210> 350
<211> 102
<212> PRT
<213> Artificial Sequence

<220>
<223> NON_TER

<220>
<221> NON_TER
<222> (1)..(102)
<223> NON_TER

<400> 350

Leu His Glu Tyr Phe Pro Glu Met Gln Ile Leu Ala Val Ser Gly Asn
1 5 10 15

Tyr Cys Thr Asp Lys Lys Pro Ala Ala Ile Asn Trp Ile Glu Gly Arg
20 25 30

Gly Lys Ser Val Val Cys Glu Ala Val Ile Pro Ser Lys Val Val Arg
35 40 45

Glu Val Leu Lys Thr Thr Thr Glu Ala Met Ile Glu Val Asn Ile Asn
50 55 60

Lys Asn Leu Val Gly Ser Ala Met Ala Gly Ser Ile Gly Gly Tyr Asn
65 70 75 80

Ala His Ala Ala Asn Ile Val Thr Ala Ile Tyr Ile Ala Cys Gly Gln
85 90 95

Asp Ala Ala Gln Asn Val

<210> 351
 <211> 115
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> NON_TER

<220>
 <221> NON_TER
 <222> (1)..(115)
 <223> NON_TER

<400> 351

Ser Ser Asn Cys Ile Thr Leu Met Glu Ala Ser Gly Pro Thr Asn Glu
 1 5 10 15

Asp Leu Tyr Ile Ser Cys Thr Met Pro Ser Ile Glu Ile Gly Thr Val
 20 25 30

Gly Gly Gly Thr Asn Leu Leu Pro Gln Gln Ala Cys Leu Gln Met Leu
 35 40 45

Gly Val Gln Gly Ala Cys Lys Asp Asn Pro Gly Glu Asn Ala Arg Gln
 50 55 60

Leu Ala Arg Ile Val Cys Gly Thr Val Met Ala Gly Glu Leu Ser Leu
 65 70 75 80

Met Ala Ala Leu Ala Ala Gly His Leu Val Lys Ser His Met Ile His
 85 90 95

Asn Arg Ser Lys Ile Asn Leu Gln Asp Leu Gln Gly Ala Cys Thr Lys
 100 105 110

Lys Thr Ala
 115

<210> 352
 <211> 462
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> NON_TER

<220>
 <221> NON_TER

<222> (1)..(462)

<223> NON_TER

<400> 352

Met Val Leu Val Thr Gln Glu Pro Glu Ile Glu Leu Pro Arg Glu Pro
1 5 10 15

Arg Pro Asn Glu Glu Cys Leu Gln Ile Leu Gly Asn Ala Glu Lys Gly
20 25 30

Ala Lys Phe Leu Ser Asp Ala Glu Ile Ile Gln Leu Val Asn Ala Lys
35 40 45

His Ile Pro Ala Tyr Lys Leu Glu Thr Leu Met Glu Thr His Glu Arg
50 55 60

Gly Val Ser Ile Arg Arg Gln Leu Leu Ser Lys Lys Leu Ser Glu Pro
65 70 75 80

Ser Ser Leu Gln Tyr Leu Pro Tyr Arg Asp Tyr Asn Tyr Ser Leu Val
85 90 95

Met Gly Ala Cys Cys Glu Asn Val Ile Gly Tyr Met Pro Ile Pro Val
100 105 110

Gly Val Ala Gly Pro Leu Cys Leu Asp Glu Lys Glu Phe Gln Val Pro
115 120 125

Met Ala Thr Thr Glu Gly Cys Leu Val Ala Ser Thr Asn Arg Gly Cys
130 135 140

Arg Ala Ile Gly Leu Gly Gly Gly Ala Ser Ser Arg Val Leu Ala Asp
145 150 155 160

Gly Met Thr Arg Gly Pro Val Val Arg Leu Pro Arg Ala Cys Asp Ser
165 170 175

Ala Glu Val Lys Ala Trp Leu Glu Thr Ser Glu Gly Phe Ala Val Ile
180 185 190

Lys Glu Ala Phe Asp Ser Thr Ser Arg Phe Ala Arg Leu Gln Lys Leu
195 200 205

His Thr Ser Ile Ala Gly Arg Asn Leu Tyr Ile Arg Phe Gln Ser Arg
210 215 220

Ser Gly Asp Ala Met Gly Met Asn Met Ile Ser Lys Gly Thr Glu Lys
 225 230 235 240

Ala Leu Ser Lys Leu His Glu Tyr Phe Pro Glu Met Gln Ile Leu Ala
 245 250 255

Val Ser Gly Asn Tyr Cys Thr Asp Lys Lys Pro Ala Ala Ile Asn Trp
 260 265 270

Ile Glu Gly Arg Gly Lys Ser Val Val Cys Glu Ala Val Ile Pro Ser
 275 280 285

Lys Val Val Arg Glu Val Leu Lys Thr Thr Thr Glu Ala Met Ile Glu
 290 295 300

Val Asn Ile Asn Lys Asn Leu Val Gly Ser Ala Met Ala Gly Ser Ile
 305 310 315 320

Gly Gly Tyr Asn Ala His Ala Ala Asn Ile Val Thr Ala Ile Tyr Ile
 325 330 335

Ala Cys Gly Gln Asp Ala Ala Gln Asn Val Gly Ser Ser Asn Cys Ile
 340 345 350

Thr Leu Met Glu Ala Ser Gly Pro Thr Asn Glu Asp Leu Tyr Ile Ser
 355 360 365

Cys Thr Met Pro Ser Ile Glu Ile Gly Thr Val Gly Gly Gly Thr Asn
 370 375 380

Leu Leu Pro Gln Gln Ala Cys Leu Gln Met Leu Gly Val Gln Gly Ala
 385 390 395 400

Cys Lys Asp Asn Pro Gly Glu Asn Ala Arg Gln Leu Ala Arg Ile Val
 405 410 415

Cys Gly Thr Val Met Ala Gly Glu Leu Ser Leu Met Ala Ala Leu Ala
 420 425 430

Ala Gly His Leu Val Lys Ser His Met Ile His Asn Arg Ser Lys Ile
 435 440 445

Asn Leu Gln Asp Leu Gln Gly Ala Cys Thr Lys Lys Thr Ala
 450 455 460

<210> 353
 <211> 123
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> NON_TER

<220>
 <221> NON_TER
 <222> (1)..(123)
 <223> NON_TER

<400> 353

Met Val Leu Val Thr Gln Glu Pro Glu Ile Glu Leu Pro Arg Glu Pro
 1 5 10 15

Arg Pro Asn Glu Glu Cys Leu Gln Ile Leu Gly Asn Ala Glu Lys Gly
 20 25 30

Ala Lys Phe Leu Ser Asp Ala Glu Ile Ile Gln Leu Val Asn Ala Lys
 35 40 45

His Ile Pro Ala Tyr Lys Leu Glu Thr Leu Met Glu Thr His Glu Arg
 50 55 60

Gly Val Ser Ile Arg Arg Gln Leu Leu Ser Lys Lys Leu Ser Glu Pro
 65 70 75 80

Ser Ser Leu Gln Tyr Leu Pro Tyr Arg Asp Tyr Asn Tyr Ser Leu Val
 85 90 95

Met Gly Ala Cys Cys Glu Asn Val Ile Gly Tyr Met Pro Ile Pro Val
 100 105 110

Gly Val Ala Gly Pro Leu Cys Leu Asp Glu Lys
 115 120

<210> 354
 <211> 562
 <212> PRT
 <213> Arabidopsis thaliana

<400> 354

Met Glu Asp Leu Arg Arg Arg Phe Pro Thr Lys Lys Asn Gly Glu Glu
 1 5 10 15

Ile Ser Asn Val Ala Val Asp Pro Pro Leu Arg Lys Ala Ser Asp Ala
 20 25 30

Leu Pro Leu Pro Leu Tyr Leu Thr Asn Thr Phe Phe Leu Ser Leu Phe
 35 40 45

Phe Ala Thr Val Tyr Phe Leu Leu Ser Arg Trp Arg Glu Lys Ile Arg
 50 55 60

Asn Ser Thr Pro Leu His Val Val Asp Leu Ser Glu Ile Cys Ala Leu
 65 70 75 80

Ile Gly Phe Val Ala Ser Phe Ile Tyr Leu Leu Gly Phe Cys Gly Ile
 85 90 95

Asp Leu Ile Phe Arg Ser Ser Ser Asp Asp Asp Val Trp Val Asn Asp
 100 105 110

Gly Met Ile Pro Cys Asn Gln Ser Leu Asp Cys Arg Glu Val Leu Pro
 115 120 125

Ile Lys Pro Asn Ser Val Asp Pro Pro Arg Glu Ser Glu Leu Asp Ser
 130 135 140

Val Glu Asp Glu Glu Ile Val Lys Leu Val Ile Asp Gly Thr Ile Pro
 145 150 155 160

Ser Tyr Ser Leu Glu Thr Lys Leu Gly Asp Cys Lys Arg Ala Ala Ala
 165 170 175

Ile Arg Arg Glu Ala Val Gln Arg Ile Thr Gly Lys Ser Leu Thr Gly
 180 185 190

Leu Pro Leu Glu Gly Phe Asp Tyr Asn Ser Ile Leu Gly Gln Cys Cys
 195 200 205

Glu Met Pro Val Gly Tyr Val Gln Ile Pro Val Gly Ile Ala Gly Pro
 210 215 220

Leu Leu Leu Asp Gly Val Glu Tyr Ser Val Pro Met Ala Thr Thr Glu
 225 230 235 240

Gly Cys Leu Val Ala Ser Thr Asn Arg Gly Phe Lys Ala Ile His Leu
 245 250 255

Ser Gly Gly Ala Phe Ser Val Leu Val Lys Asp Ala Met Thr Arg Ala
 260 265 270

Pro Val Val Arg Phe Pro Ser Ala Arg Arg Ala Ala Leu Val Met Phe
 275 280 285

Tyr Leu Gln Asp Pro Ser Asn Phe Glu Arg Leu Ser Leu Ile Phe Asn
 290 295 300

Lys Ser Ser Arg Phe Ala Arg Leu Gln Ser Ile Thr Cys Thr Ile Ala
 305 310 315 320

Gly Arg Asn Leu Tyr Pro Arg Phe Ala Cys Ser Thr Gly Asp Ala Met
 325 330 335

Gly Met Asn Met Val Ser Lys Gly Val Gln Asn Val Leu Asp Phe Val
 340 345 350

Lys Ser Glu Phe Pro Asp Met Asp Val Ile Gly Ile Ser Gly Asn Tyr
 355 360 365

Cys Ser Asp Lys Lys Ala Ser Ala Val Asn Trp Ile Glu Gly Arg Gly
 370 375 380

Lys His Val Val Cys Glu Ala Phe Ile Lys Ala Glu Ile Val Glu Lys
 385 390 395 400

Val Leu Lys Thr Ser Val Glu Ala Leu Val Glu Leu Asn Thr Leu Lys
 405 410 415

Asn Leu Val Gly Ser Ala Met Ala Gly Ser Leu Gly Gly Phe Asn Ala
 420 425 430

His Ser Ser Asn Ile Val Ser Ala Val Phe Ile Ala Thr Gly Gln Asp
 435 440 445

Pro Ala Gln Asn Val Glu Ser Ser His Cys Met Thr Met Ile Leu Pro
 450 455 460

Asp Gly Asp Asp Leu His Ile Ser Val Ser Met Pro Cys Ile Glu Val
 465 470 475 480

Gly Thr Val Gly Gly Gly Thr Gln Leu Ala Ser Gln Ala Ala Cys Leu
 485 490 495

Asn Leu Leu Gly Val Lys Gly Ser Asn Asn Glu Lys Pro Gly Ser Asn
 500 505 510

Ala Gln Gln Leu Ala Arg Ile Val Ala Gly Ser Val Leu Ala Gly Glu
515 520 525

Leu Ser Leu Met Ser Ala Ile Ala Ala Gly Gln Leu Val Lys Ser His
530 535 540

Met Lys Tyr Asn Arg Ser Ser Arg Asp Ile Gly Pro Ser Ser Gln Val
545 550 555 560

Asn Arg

<210> 355
<211> 224
<212> PRT
<213> Mus musculus

<400> 355

Glu Lys Ala Leu Leu Lys Leu Gln Glu Phe Phe Pro Asp Met Gln Ile
1 5 10 15

Leu Ala Val Ser Gly Asn Tyr Cys Thr Asp Lys Lys Pro Ala Ala Ile
20 25 30

Asn Trp Ile Glu Gly Arg Gly Lys Thr Val Val Cys Glu Ala Val Ile
35 40 45

Pro Ala Lys Val Val Arg Glu Val Leu Lys Thr Thr Thr Glu Ala Met
50 55 60

Val Asp Val Asn Ile Asn Lys Asn Leu Val Gly Ser Ala Met Ala Gly
65 70 75 80

Ser Ile Gly Gly Tyr Asn Ala His Ala Ala Asn Ile Val Thr Ala Ile
85 90 95

Tyr Ile Ala Cys Gly Gln Asp Ala Ala Gln Asn Val Gly Ser Ser Asn
100 105 110

Cys Ile Thr Leu Met Glu Ala Ser Gly Pro Thr Asn Glu Asp Leu Tyr
115 120 125

Ile Ser Cys Thr Met Pro Ser Ile Glu Ile Gly Thr Val Gly Gly Gly
130 135 140

Thr Asn Leu Leu Pro Gln Gln Ala Cys Leu Gln Met Leu Gly Val Gln
145 150 155 160

Gly Ala Cys Lys Asp Asn Pro Gly Glu Asn Ala Arg Gln Leu Ala Arg
165 170 175

Ile Val Cys Gly Thr Val Met Ala Gly Glu Leu Ser Leu Met Ala Ala
180 185 190

Leu Ala Ala Gly His Leu Val Arg Ser His Met Val His Asn Arg Ser
195 200 205

Lys Ile Asn Leu Gln Asp Leu Gln Gly Thr Cys Thr Lys Lys Ala Ala
210 215 220

<210> 356
<211> 887
<212> PRT
<213> Mesocricetus auratus

<400> 356

Met Leu Ser Arg Leu Phe Arg Met His Gly Leu Phe Val Ala Ser His
1 5 10 15

Pro Trp Glu Val Ile Val Gly Thr Val Thr Leu Thr Ile Cys Met Met
20 25 30

Ser Met Asn Met Phe Thr Gly Asn Asn Lys Ile Cys Gly Trp Asn Tyr
35 40 45

Glu Cys Pro Lys Phe Glu Glu Asp Val Leu Ser Ser Asp Ile Ile Ile
50 55 60

Leu Thr Ile Thr Arg Cys Ile Ala Ile Leu Tyr Ile Tyr Phe Gln Phe
65 70 75 80

Gln Asn Leu Arg Gln Leu Gly Ser Lys Tyr Ile Leu Gly Ile Ala Gly
85 90 95

Leu Phe Thr Ile Phe Ser Ser Phe Val Phe Ser Thr Val Val Ile His
100 105 110

Phe Leu Asp Lys Glu Leu Thr Gly Leu Asn Glu Ala Leu Pro Phe Phe
115 120 125

Leu Leu Leu Ile Asp Leu Ser Arg Ala Ser Ala Leu Ala Lys Phe Ala
130 135 140

Leu Ser Ser Asn Ser Gln Asp Glu Val Arg Glu Asn Ile Ala Arg Gly
 145 150 155 160

Met Ala Ile Leu Gly Pro Thr Phe Thr Leu Asp Ala Leu Val Glu Cys
 165 170 175

Leu Val Ile Gly Val Gly Thr Met Ser Gly Val Arg Gln Leu Glu Ile
 180 185 190

Met Cys Cys Phe Gly Cys Met Ser Val Leu Ala Asn Tyr Phe Val Phe
 195 200 205

Met Thr Phe Phe Pro Ala Cys Val Ser Leu Val Leu Glu Leu Ser Arg
 210 215 220

Glu Ser Arg Glu Gly Arg Pro Ile Trp Gln Leu Ser His Phe Ala Arg
 225 230 235 240

Val Leu Glu Glu Glu Glu Asn Lys Pro Asn Pro Val Thr Gln Arg Val
 245 250 255

Lys Met Ile Met Ser Leu Gly Leu Val Leu Val His Ala His Ser Arg
 260 265 270

Trp Ile Ala Asp Pro Ser Pro Gln Asn Ser Thr Thr Glu His Ser Lys
 275 280 285

Val Ser Leu Gly Leu Asp Glu Asp Val Ser Lys Arg Ile Glu Pro Ser
 290 295 300

Val Ser Leu Trp Gln Phe Tyr Leu Ser Lys Met Ile Ser Met Asp Ile
 305 310 315 320

Glu Gln Val Val Thr Leu Ser Leu Ala Phe Leu Leu Ala Val Lys Tyr
 325 330 335

Ile Phe Phe Glu Gln Ala Glu Thr Glu Ser Thr Leu Ser Leu Lys Asn
 340 345 350

Pro Ile Thr Ser Pro Val Ala Thr Pro Lys Lys Ala Pro Asp Asn Cys
 355 360 365

Cys Arg Arg Glu Pro Val Leu Ser Arg Arg Asn Glu Lys Leu Ser Ser
 370 375 380

Val Glu Glu Glu Pro Gly Val Asn Gln Asp Arg Lys Val Glu Val Ile

385		390		395		400									
Lys	Pro	Leu	Val	Ala	Glu	Thr	Glu	Ser	Thr	Ser	Arg	Ala	Thr	Phe	Val
				405					410					415	
Leu	Gly	Ala	Ser	Gly	Gly	Cys	Ser	Pro	Val	Ala	Leu	Gly	Thr	Gln	Glu
			420					425					430		
Pro	Glu	Ile	Glu	Leu	Pro	Ser	Glu	Pro	Arg	Pro	Asn	Glu	Glu	Cys	Leu
		435					440					445			
Gln	Ile	Leu	Glu	Ser	Ala	Glu	Lys	Gly	Ala	Lys	Phe	Leu	Ser	Asp	Ala
	450					455					460				
Glu	Ile	Ile	Gln	Leu	Val	Asn	Ala	Lys	His	Ile	Pro	Ala	Tyr	Lys	Leu
465					470					475					480
Glu	Thr	Leu	Met	Glu	Thr	His	Glu	Arg	Gly	Val	Ser	Ile	Arg	Arg	Gln
				485					490					495	
Leu	Leu	Ser	Thr	Lys	Leu	Pro	Glu	Pro	Ser	Ser	Leu	Gln	Tyr	Leu	Pro
			500					505					510		
Tyr	Arg	Asp	Tyr	Asn	Tyr	Ser	Leu	Val	Met	Gly	Ala	Cys	Cys	Glu	Asn
		515					520					525			
Val	Ile	Gly	Tyr	Met	Pro	Ile	Pro	Val	Gly	Val	Ala	Gly	Pro	Leu	Cys
	530					535					540				
Leu	Asp	Gly	Lys	Glu	Tyr	Gln	Val	Pro	Met	Ala	Thr	Thr	Glu	Gly	Cys
545					550					555					560
Leu	Val	Ala	Ser	Thr	Asn	Arg	Gly	Cys	Arg	Ala	Ile	Gly	Leu	Gly	Gly
				565					570					575	
Gly	Ala	Ser	Ser	Arg	Val	Leu	Ala	Asp	Gly	Met	Thr	Arg	Gly	Pro	Val
			580					585					590		
Val	Arg	Leu	Pro	Arg	Ala	Cys	Asp	Ser	Ala	Glu	Val	Lys	Ala	Trp	Leu
		595					600					605			
Glu	Thr	Pro	Glu	Gly	Phe	Ala	Val	Ile	Lys	Asp	Ala	Phe	Asp	Ser	Thr
	610					615					620				
Ser	Arg	Phe	Ala	Arg	Leu	Gln	Lys	Leu	His	Val	Thr	Met	Ala	Gly	Arg
625					630					635					640

Asn Leu Tyr Ile Arg Phe Gln Ser Lys Thr Gly Asp Ala Met Gly Met
 645 650 655

Asn Met Ile Ser Lys Gly Thr Glu Lys Ala Leu Val Lys Leu Gln Glu
 660 665 670

Phe Phe Pro Glu Met Gln Ile Leu Ala Val Ser Gly Asn Tyr Cys Thr
 675 680 685

Asp Lys Lys Pro Ala Ala Val Asn Trp Ile Glu Gly Arg Gly Lys Thr
 690 695 700

Val Val Cys Glu Ala Val Ile Pro Ala Arg Val Val Arg Glu Val Leu
 705 710 715 720

Lys Thr Thr Thr Glu Ala Met Ile Asp Val Asn Ile Asn Lys Asn Leu
 725 730 735

Val Gly Ser Ala Met Ala Gly Ser Ile Gly Gly Tyr Asn Ala His Ala
 740 745 750

Ala Asn Ile Val Thr Ala Ile Tyr Ile Ala Cys Gly Gln Asp Ala Ala
 755 760 765

Gln Asn Val Gly Ser Ser Asn Cys Ile Thr Leu Met Glu Ala Ser Gly
 770 775 780

Pro Thr Asn Glu Asp Leu Tyr Ile Ser Cys Thr Met Pro Ser Ile Glu
 785 790 795 800

Ile Gly Thr Val Gly Gly Gly Thr Asn Leu Leu Pro Gln Gln Ala Cys
 805 810 815

Leu Gln Met Leu Gly Val Gln Gly Ala Cys Lys Asp Asn Pro Gly Glu
 820 825 830

Asn Ala Arg Gln Leu Ala Arg Ile Val Cys Gly Thr Val Met Ala Gly
 835 840 845

Glu Leu Ser Leu Met Ala Ala Leu Ala Ala Gly His Leu Val Arg Ser
 850 855 860

His Met Val His Asn Arg Ser Lys Ile Asn Leu Gln Asp Leu Gln Gly
 865 870 875 880

Thr Cys Thr Lys Lys Ala Ala
885

<210> 357
<211> 592
<212> PRT .
<213> Arabidopsis thaliana

<400> 357

Met Asp Leu Arg Arg Arg Pro Pro Lys Pro Pro Val Thr Asn Asn Asn
1 5 10 15

Asn Ser Asn Gly Ser Phe Arg Ser Tyr Gln Pro Arg Thr Ser Asp Asp
20 25 30

Asp His Arg Arg Arg Ala Thr Thr Ile Ala Pro Pro Pro Lys Ala Ser
35 40 45

Asp Ala Leu Pro Leu Pro Leu Tyr Leu Thr Asn Ala Val Phe Phe Thr
50 55 60

Leu Phe Phe Ser Val Ala Tyr Tyr Leu Leu His Arg Trp Arg Asp Lys
65 70 75 80

Ile Arg Tyr Asn Thr Pro Leu His Val Val Thr Ile Thr Glu Leu Gly
85 90 95

Ala Ile Ile Ala Leu Ile Ala Ser Phe Ile Tyr Leu Leu Gly Phe Phe
100 105 110

Gly Ile Asp Phe Val Gln Ser Phe Ile Ser Arg Ala Ser Gly Asp Ala
115 120 125

Trp Asp Leu Ala Asp Thr Ile Asp Asp Asp Asp His Arg Leu Val Thr
130 135 140

Cys Ser Pro Pro Thr Pro Ile Val Ser Val Ala Lys Leu Pro Asn Pro
145 150 155 160

Glu Pro Ile Val Thr Glu Ser Leu Pro Glu Glu Asp Glu Glu Ile Val
165 170 175

Lys Ser Val Ile Asp Gly Val Ile Pro Ser Tyr Ser Leu Glu Ser Arg
180 185 190

Leu Gly Asp Cys Lys Arg Ala Ala Ser Ile Arg Arg Glu Ala Leu Gln

195	200	205
Arg Val Thr Gly Arg Ser Ile Glu Gly Leu Pro Leu Asp Gly Phe Asp 210 215 220		
Tyr Glu Ser Ile Leu Gly Gln Cys Cys Glu Met Pro Val Gly Tyr Ile 225 230 235 240		
Gln Ile Pro Val Gly Ile Ala Gly Pro Leu Leu Leu Asp Gly Tyr Glu 245 250 255		
Tyr Ser Val Pro Met Ala Thr Thr Glu Gly Cys Leu Val Ala Ser Thr 260 265 270		
Asn Arg Gly Cys Lys Ala Met Phe Ile Ser Gly Gly Ala Thr Ser Thr 275 280 285		
Val Leu Lys Asp Gly Met Thr Arg Ala Pro Val Val Arg Phe Ala Ser 290 295 300		
Ala Arg Arg Ala Ser Glu Leu Lys Phe Phe Leu Glu Asn Pro Glu Asn 305 310 315 320		
Phe Asp Thr Leu Ala Val Val Phe Asn Arg Ser Ser Arg Phe Ala Arg 325 330 335		
Leu Gln Ser Val Lys Cys Thr Ile Ala Gly Lys Asn Ala Tyr Val Arg 340 345 350		
Phe Cys Cys Ser Thr Gly Asp Ala Met Gly Met Asn Met Val Ser Lys 355 360 365		
Gly Val Gln Asn Val Leu Glu Tyr Leu Thr Asp Asp Phe Pro Asp Met 370 375 380		
Asp Val Ile Gly Ile Ser Gly Asn Phe Cys Ser Asp Lys Lys Pro Ala 385 390 395 400		
Ala Val Asn Trp Ile Glu Gly Arg Gly Lys Ser Val Val Cys Glu Ala 405 410 415		
Val Ile Arg Gly Glu Ile Val Asn Lys Val Leu Lys Thr Ser Val Ala 420 425 430		
Ala Leu Val Glu Leu Asn Met Leu Lys Asn Leu Ala Gly Ser Ala Val 435 440 445		

Ala Gly Ser Leu Gly Gly Phe Asn Ala His Ala Ser Asn Ile Val Ser
 450 455 460

Ala Val Phe Ile Ala Thr Gly Gln Asp Pro Ala Gln Asn Val Glu Ser
 465 470 475 480

Ser Gln Cys Ile Thr Met Met Glu Ala Ile Asn Asp Gly Lys Asp Ile
 485 490 495

His Ile Ser Val Thr Met Pro Ser Ile Glu Val Gly Thr Val Gly Gly
 500 505 510

Gly Thr Gln Leu Ala Ser Gln Ser Ala Cys Leu Asn Leu Leu Gly Val
 515 520 525

Lys Gly Ala Ser Thr Glu Ser Pro Gly Met Asn Ala Arg Arg Leu Ala
 530 535 540

Thr Ile Val Ala Gly Ala Val Leu Ala Gly Glu Leu Ser Leu Met Ser
 545 550 555 560

Ala Ile Ala Ala Gly Gln Leu Val Arg Ser His Met Lys Tyr Asn Arg
 565 570 575

Ser Ser Arg Asp Ile Ser Gly Ala Thr Thr Thr Thr Thr Thr Thr Thr
 580 585 590

<210> 358

<211> 948

<212> PRT

<213> Schistosoma mansoni

<400> 358

Met Leu Lys Ile Leu Asn Thr Val Leu Leu Phe Phe Asp Cys Phe Ser
 1 5 10 15

Thr Gly Thr Phe Phe Val Leu Leu Ile Tyr Leu Phe Thr Arg Leu Arg
 20 25 30

Thr His Leu Leu His Phe Ser Ser Ser Asn Cys His Leu Asp Val Ile
 35 40 45

Ile Tyr Gln Ser Arg Ala Val Ile Ile Phe Leu Val Val Phe Val Tyr
 50 55 60

Phe Ile Gly Val Leu Thr Cys Lys Ile Asn Asp Lys Ile Leu Val His
65 70 75 80

Thr Met Leu Arg Asn Lys Arg Gln Leu Asn Thr Leu Phe Tyr Thr Leu
85 90 95

Ile Leu Phe Thr Phe Ala Leu Cys Ser Leu Ser Ser Val Leu Phe Val
100 105 110

Pro Tyr Thr Ser Phe Ala Ile Phe Leu Leu Ser Thr Ser Val Phe Leu
115 120 125

Leu Phe Ser Asp Leu Ser Val Phe Phe Ile Val Leu Glu Tyr Tyr Leu
130 135 140

Leu Glu Ile Glu Leu Val Asn Tyr Glu His Ala Lys Arg His Cys Leu
145 150 155 160

Leu Ser His Leu Phe Ser Asn Gln Leu Phe Val Asp His Met Leu Gly
165 170 175

Met Phe Leu Lys Thr Ser Leu Phe Ser Ile Ser Thr Thr Ser Lys Tyr
180 185 190

Ala Tyr Leu Glu Ser Ile Phe Lys Cys Thr Leu Met Glu Gln Ile Ile
195 200 205

Tyr Ile Met Ile Val Phe Val Phe Leu Pro Ser Phe Met Arg Ile Phe
210 215 220

Ala Ser Tyr Ala Lys Arg Met Tyr Gly Glu Gln Lys Lys Cys Leu Val
225 230 235 240

Ser Asn Lys Gly Val Ser Ser Ser Thr Arg Lys Arg Arg His Ser Tyr
245 250 255

Ser Ser Gly His Ser Tyr Val Glu Tyr Arg Arg Met Ser Val His Asn
260 265 270

Leu Ile Gly Tyr Val Val Asn Pro Asn Cys His Tyr Lys Cys Trp Ser
275 280 285

Thr Thr Phe Val Ile Phe Val Ser Leu Ile Ile Leu His Leu Asn Asn
290 295 300

Arg Tyr Ser Glu Arg Ile Ser Ser Phe Lys His Asn Ser Ser Glu Asn

305		310		315		320
Glu Val Phe Pro Val Leu Tyr His Ile Thr Ala Tyr Glu Val Thr Ser						
		325		330		335
Ile Phe His Phe Ile Tyr Asn Ile Phe His Val Ile Asn Ala Asn Leu						
		340		345		350
Val Val Tyr Leu Phe Leu Gly Leu Phe Leu Phe Lys Arg Ile Arg Leu						
		355		360		365
Asn Lys Pro Ile Asn Ser Gln Leu Arg Asn Leu Asn Ile Pro Lys Ile						
		370		375		380
Lys Glu Thr Leu Ile Ser Asp Gln Val Lys Gln Ser Pro Val Leu Pro						
		385		390		395
Lys Phe Ser Lys Lys Leu Asn Asp Ile Pro Leu Gln Ser Arg Lys Arg						
		405		410		415
Ile Tyr Cys Leu His Lys Asp Asp Asp Tyr Ile Asp Arg Asn Asp Ser						
		420		425		430
Ser Ser Val Ser Thr Phe Ser Asn Thr Cys Lys Asn Ser Asn Glu Arg						
		435		440		445
Pro Ser Asn Val Leu Asp Leu Asp Met Leu Thr Glu Lys Ile Lys Gln						
		450		455		460
Gly Leu Gly His Glu Leu Ser Asp Thr Glu Ile Leu Gln Leu Leu Ser						
		465		470		475
His Gly Arg Leu Lys Thr Arg Glu Leu Glu Ser Val Val Arg Asn Pro						
		485		490		495
Phe Arg Ala Val Glu Leu Arg Arg Leu Asp Leu Ser Thr Phe Leu Asn						
		500		505		510
Asn Pro His Ile Ile Glu Arg Ile Pro Tyr Lys Asp Tyr Asp Tyr Arg						
		515		520		525
Leu Val Tyr Gly Gln Cys Cys Glu Glu Val Ile Gly Tyr Met Pro Ile						
		530		535		540
Pro Val Gly Lys Ile Gly Pro Leu Leu Leu Asp Gly Arg Ser His Tyr						
		545		550		555
						560

Ile Pro Leu Ala Thr Thr Glu Gly Cys Leu Val Ala Ser Thr Asn Arg
565 570 575

Gly Cys Arg Ala Ile Phe Leu Ala Gly Gly Ile Lys Ser Val Val Tyr
580 585 590

Arg Asp Gln Met Thr Arg Ala Pro Val Val Trp Phe Pro Ser Ile Ile
595 600 605

Asp Ser Val Lys Cys Ile Ala Trp Ile Asp Ser Glu Glu Gly Phe Gln
610 615 620

Thr Leu Lys Ser Ala Phe Asp Lys Thr Ser Ala His Val Asn Leu Leu
625 630 635 640

Ser Val Phe Ala Cys Pro Ala Gly Arg Tyr Ile His Ile Arg Phe Ala
645 650 655

Ala Arg Thr Gly Asp Ala Met Gly Met Asn Met Val Ser Lys Ala Thr
660 665 670

Asp Ser Ala Leu His Cys Leu Lys Lys Tyr Phe Ser Asn Met Gln Val
675 680 685

Ile Ser Leu Ser Gly Asn Met Cys Thr Asp Lys Lys Pro Ala Thr Ile
690 695 700

Asn Thr Ile Leu Gly Arg Gly Lys Ser Val Ile Ala Glu Ala His Leu
705 710 715 720

Ser Ala Asp Val Leu Ala Gln Val Leu His Thr Asn Ala Gln Arg Leu
725 730 735

Ala Arg Leu Thr His Ser Lys Asn Trp Ile Gly Ser Ala Met Ala Gly
740 745 750

Cys Pro Gly Met Met Gly Cys Asn Ala His Ala Ala Asn Ile Ile Ala
755 760 765

Gly Met Phe Ala Ala Thr Gly Gln Asp Leu Ala Gln Val Val Asp Ser
770 775 780

Ser Ser Cys Leu Thr Gln Leu Glu Val Asp Leu Ser Asp Asp Ser Leu
785 790 795 800

Val Ala Ser Val Thr Met Pro Cys Leu Glu Val Gly Thr Val Gly Gly
805 810 815

Gly Thr Arg Leu Ser Gly Gln Arg Ala Cys Leu Asp Leu Leu Asp Leu
820 825 830

Ser Val Asp Arg Pro Thr Glu His Leu Ser Arg Ile Ile Ala Gly Thr
835 840 845

Val Leu Ala Ala Glu Leu Ser Leu Met Ala Ala Leu Asp Thr Asp Asp
850 855 860

Leu Val Lys Ala His Met His Phe Asn Arg Ala Lys Gln Ser Thr Asn
865 870 875 880

Ser His Ser Cys Ser His Ser Thr Thr Thr Asp Asn Asn Asp Asn Ile
885 890 895

Ser Asn Ile Tyr Asp Asn His Asn Val Ala Leu Ser Ser Lys Ile Pro
900 905 910

Val Thr Asp Asn Ser Asp Ile Arg Glu Ser Val His Ser Leu His Val
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Lys Pro Phe Pro Val Lys Ser Asp Leu Ser Val Asn Pro Glu Ile Ser
930 935 940

His Tyr Thr Met
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<211> 887
<212> PRT
<213> Cricetulus griseus

<400> 359

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35 40 45

Glu Cys Pro Lys Phe Glu Glu Asp Val Leu Ser Ser Asp Ile Ile Ile

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Leu Thr Ile Thr Arg Cys Ile Ala Ile Leu Tyr Ile Tyr Phe Gln Phe				
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Gln Asn Leu Arg Gln Leu Gly Ser Lys Tyr Ile Leu Gly Ile Ala Gly				
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Leu Phe Thr Ile Phe Ser Ser Phe Val Phe Ser Thr Val Val Ile His				
	100		105	110
Phe Leu Asp Lys Glu Leu Thr Gly Leu Asn Glu Ala Leu Pro Phe Phe				
	115		120	125
Leu Leu Leu Ile Asp Leu Ser Arg Ala Ser Ala Leu Ala Lys Phe Ala				
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Leu Ser Ser Asn Ser Gln Asp Glu Val Arg Glu Asn Ile Ala Arg Gly				
145		150		155 160
Met Ala Ile Leu Gly Pro Thr Phe Thr Leu Asp Ala Leu Val Glu Cys				
	165		170	175
Leu Val Ile Gly Val Gly Thr Met Ser Gly Val Arg Gln Leu Glu Ile				
	180		185	190
Met Cys Cys Phe Gly Cys Met Ser Val Leu Ala Asn Tyr Phe Val Phe				
	195		200	205
Met Thr Phe Phe Pro Ala Cys Val Ser Leu Val Leu Glu Leu Ser Arg				
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Glu Ser Arg Glu Gly Arg Pro Ile Trp Gln Leu Ser His Phe Ala Arg				
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Val Leu Glu Glu Glu Glu Asn Lys Pro Asn Pro Val Thr Gln Arg Val				
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Lys Met Ile Met Ser Leu Gly Leu Val Leu Val His Ala His Ser Arg				
	260		265	270
Trp Ile Ala Asp Pro Ser Pro Gln Asn Ser Thr Thr Glu His Ser Lys				
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Val Ser Leu Gly Leu Asp Glu Asp Val Ser Lys Arg Ile Glu Pro Ser				
	290		295	300

Val Ser Leu Trp Gln Phe Tyr Leu Ser Lys Met Ile Ser Met Asp Ile
 305 310 315 320

Glu Gln Val Val Thr Leu Ser Leu Ala Phe Leu Leu Ala Val Lys Tyr
 325 330 335

Ile Phe Phe Glu Gln Ala Glu Thr Glu Ser Thr Leu Ser Leu Lys Asn
 340 345 350

Pro Ile Thr Ser Pro Val Val Thr Pro Lys Lys Ala Pro Asp Asn Cys
 355 360 365

Cys Arg Arg Glu Pro Leu Leu Val Arg Arg Ser Glu Lys Leu Ser Ser
 370 375 380

Val Glu Glu Glu Pro Gly Val Ser Gln Asp Arg Lys Val Glu Val Ile
 385 390 395 400

Lys Pro Leu Val Val Glu Thr Glu Ser Ala Ser Arg Ala Thr Phe Val
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Leu Glu Ile Glu Leu Pro Ser Glu Pro Arg Pro Asn Glu Glu Cys Leu
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Gln Ile Leu Glu Ser Ala Glu Lys Gly Ala Lys Phe Leu Ser Asp Ala
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Glu Ile Ile Gln Leu Val Asn Ala Lys His Ile Pro Ala Tyr Lys Leu
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Glu Thr Leu Met Glu Thr His Glu Arg Gly Val Ser Ile Arg Arg Gln
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Tyr Arg Asp Tyr Asn Tyr Ser Leu Val Met Gly Ala Cys Cys Glu Asn
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 580 585 590

Val Arg Leu Pro Arg Ala Cys Asp Ser Ala Glu Val Lys Ala Trp Leu
 595 600 605

Glu Thr Pro Glu Gly Phe Ala Val Ile Lys Asp Ala Phe Asp Ser Thr
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Ser Arg Phe Ala Arg Leu Gln Lys Leu His Val Thr Met Ala Gly Arg
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Asn Met Ile Ser Lys Gly Thr Glu Lys Ala Leu Leu Lys Leu Gln Glu
 660 665 670

Phe Phe Pro Glu Met Gln Ile Leu Ala Val Ser Gly Asn Tyr Cys Thr
 675 680 685

Asp Lys Lys Pro Ala Ala Ile Asn Trp Ile Glu Gly Arg Gly Lys Thr
 690 695 700

Val Val Cys Glu Ala Val Ile Pro Ala Lys Val Val Arg Glu Val Leu
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Lys Thr Thr Thr Glu Ala Met Ile Asp Val Asn Ile Asn Lys Asn Leu
 725 730 735

Val Gly Ser Ala Met Ala Gly Ser Ile Gly Gly Tyr Asn Ala His Ala
 740 745 750

Ala Asn Ile Val Thr Ala Ile Tyr Ile Ala Cys Gly Gln Asp Ala Ala
 755 760 765

Gln Asn Val Gly Ser Ser Asn Cys Ile Thr Leu Met Glu Ala Ser Gly
 770 775 780

Pro Thr Asn Glu Asp Leu Tyr Ile Ser Cys Thr Met Pro Ser Ile Glu
785 790 795 800

Ile Gly Thr Val Gly Gly Gly Thr Asn Leu Leu Pro Gln Gln Ala Cys
805 810 815

Leu Gln Met Leu Gly Val Gln Gly Ala Cys Lys Asp Asn Pro Gly Glu
820 825 830

Asn Ala Arg Gln Leu Ala Arg Ile Val Cys Gly Thr Val Met Ala Gly
835 840 845

Glu Leu Ser Leu Met Ala Ala Leu Ala Ala Gly His Leu Val Arg Ser
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His Met Val His Asn Arg Ser Lys Ile Asn Leu Gln Asp Leu Gln Gly
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Thr Cys Thr Lys Lys Ser Ala
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<210> 360
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<212> PRT
<213> Pseudomonas mevalonii

<400> 360

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Arg Ala Val Ala Val Leu Lys Gln Lys Arg Gly Gln
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<212> DNA
<213> Stevia rebaudiana

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<212> DNA

<213> Stevia rebaudiana

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 <212> DNA
 <213> *Taxus brevifolia*

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<211> 2594

<212> DNA

<213> *Lactuca sativa*

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 <212> DNA
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Gly Phe Asp Ile Ile Phe Pro Gly Leu Leu Glu Tyr Ala Lys Asn Leu
 165 170 175

Asp Ile Asn Leu Leu Ser Lys Gln Thr Asp Phe Ser Leu Met Leu His
180 185 190

Lys Arg Glu Leu Glu Gln Lys Arg Cys His Ser Asn Glu Met Asp Gly
195 200 205

Tyr Leu Ala Tyr Ile Ser Glu Gly Leu Gly Asn Leu Tyr Asp Trp Asn
210 215 220

Met Val Lys Lys Tyr Gln Met Lys Asn Gly Ser Val Phe Asn Ser Pro
225 230 235 240

Ser Ala Thr Ala Ala Ala Phe Ile Asn His Gln Asn Pro Gly Cys Leu
245 250 255

Asn Tyr Leu Asn Ser Leu Leu Asp Lys Phe Gly Asn Ala Val Pro Thr
260 265 270

Val Tyr Pro His Asp Leu Phe Ile Arg Leu Ser Met Val Asp Thr Ile
275 280 285

Glu Arg Leu Gly Ile Ser His His Phe Arg Val Glu Ile Lys Asn Val
290 295 300

Leu Asp Glu Thr Tyr Arg Cys Trp Val Glu Arg Asp Glu Gln Ile Phe
305 310 315 320

Met Asp Val Val Thr Cys Ala Leu Ala Phe Arg Leu Leu Arg Ile Asn
325 330 335

Gly Tyr Glu Val Ser Pro Asp Pro Leu Ala Glu Ile Thr Asn Glu Leu
340 345 350

Ala Leu Lys Asp Glu Tyr Ala Ala Leu Glu Thr Tyr His Ala Ser His
355 360 365

Ile Leu Tyr Gln Glu Asp Leu Ser Ser Gly Lys Gln Ile Leu Lys Ser
370 375 380

Ala Asp Phe Leu Lys Glu Ile Ile Ser Thr Asp Ser Asn Arg Leu Ser
385 390 395 400

Lys Leu Ile His Lys Glu Val Glu Asn Ala Leu Lys Phe Pro Ile Asn
405 410 415

Thr Gly Leu Glu Arg Ile Asn Thr Arg Arg Asn Ile Gln Leu Tyr Asn
 420 425 430

Val Asp Asn Thr Arg Ile Leu Lys Thr Thr Tyr His Ser Ser Asn Ile
 435 440 445

Ser Asn Thr Asp Tyr Leu Arg Leu Ala Val Glu Asp Phe Tyr Thr Cys
 450 455 460

Gln Ser Ile Tyr Arg Glu Glu Leu Lys Gly Leu Glu Arg Trp Val Val
 465 470 475 480

Glu Asn Lys Leu Asp Gln Leu Lys Phe Ala Arg Gln Lys Thr Ala Tyr
 485 490 495

Cys Tyr Phe Ser Val Ala Ala Thr Leu Ser Ser Pro Glu Leu Ser Asp
 500 505 510

Ala Arg Ile Ser Trp Ala Lys Asn Gly Ile Leu Thr Thr Val Val Asp
 515 520 525

Asp Phe Phe Asp Ile Gly Gly Thr Ile Asp Glu Leu Thr Asn Leu Ile
 530 535 540

Gln Cys Val Glu Lys Trp Asn Val Asp Val Asp Lys Asp Cys Cys Ser
 545 550 555 560

Glu His Val Arg Ile Leu Phe Leu Ala Leu Lys Asp Ala Ile Cys Trp
 565 570 575

Ile Gly Asp Glu Ala Phe Lys Trp Gln Ala Arg Asp Val Thr Ser His
 580 585 590

Val Ile Gln Thr Trp Leu Glu Leu Met Asn Ser Met Leu Arg Glu Ala
 595 600 605

Ile Trp Thr Arg Asp Ala Tyr Val Pro Thr Leu Asn Glu Tyr Met Glu
 610 615 620

Asn Ala Tyr Val Ser Phe Ala Leu Gly Pro Ile Val Lys Pro Ala Ile
 625 630 635 640

Tyr Phe Val Gly Pro Lys Leu Ser Glu Glu Ile Val Glu Ser Ser Glu
 645 650 655

Tyr His Asn Leu Phe Lys Leu Met Ser Thr Gln Gly Arg Leu Leu Asn
660 665 670

Asp Ile His Ser Phe Lys Arg Glu Phe Lys Glu Gly Lys Leu Asn Ala
675 680 685

Val Ala Leu His Leu Ser Asn Gly Glu Ser Gly Lys Val Glu Glu Glu
690 695 700

Val Val Glu Glu Met Met Met Met Ile Lys Asn Lys Arg Lys Glu Leu
705 710 715 720

Met Lys Leu Ile Phe Glu Glu Asn Gly Ser Ile Val Pro Arg Ala Cys
725 730 735

Lys Asp Ala Phe Trp Asn Met Cys His Val Leu Asn Phe Phe Tyr Ala
740 745 750

Asn Asp Asp Gly Phe Thr Gly Asn Thr Ile Leu Asp Thr Val Lys Asp
755 760 765

Ile Ile Tyr Asn Pro Leu Val Leu Val Asn Glu Asn Glu Glu Gln Arg
770 775 780

<210> 384

<211> 784

<212> PRT

<213> Stevia rebaudiana

<400> 384

Met Asn Leu Ser Leu Cys Ile Ala Ser Pro Leu Leu Thr Lys Ser Ser
1 5 10 15

Arg Pro Thr Ala Leu Ser Ala Ile His Thr Ala Ser Thr Ser His Gly
20 25 30

Gly Gln Thr Asn Pro Thr Asn Leu Ile Ile Asp Thr Thr Lys Glu Arg
35 40 45

Ile Gln Lys Leu Phe Lys Asn Val Glu Ile Ser Val Ser Ser Tyr Asp
50 55 60

Thr Ala Trp Val Ala Met Val Pro Ser Pro Asn Ser Pro Lys Ser Pro
65 70 75 80

Cys Phe Pro Glu Cys Leu Asn Trp Leu Ile Asn Asn Gln Leu Asn Asp
85 90 95

Gly Ser Trp Gly Leu Val Asn His Thr His Asn His Asn His Pro Leu
 100 105 110

Leu Lys Asp Ser Leu Ser Ser Thr Leu Ala Cys Ile Val Ala Leu Lys
 115 120 125

Arg Trp Asn Val Gly Glu Asp Gln Ile Asn Lys Gly Leu Ser Phe Ile
 130 135 140

Glu Ser Asn Leu Ala Ser Ala Thr Asp Lys Ser Gln Pro Ser Pro Ile
 145 150 155 160

Gly Phe Asp Ile Ile Phe Pro Gly Leu Leu Glu Tyr Ala Lys Asn Leu
 165 170 175

Asp Ile Asn Leu Leu Ser Lys Gln Thr Asp Phe Ser Leu Met Leu His
 180 185 190

Lys Arg Glu Leu Glu Gln Lys Arg Cys His Ser Asn Glu Ile Asp Gly
 195 200 205

Tyr Leu Ala Tyr Ile Ser Glu Gly Leu Gly Asn Leu Tyr Asp Trp Asn
 210 215 220

Met Val Lys Lys Tyr Gln Met Lys Asn Gly Ser Val Phe Asn Ser Pro
 225 230 235 240

Ser Ala Thr Ala Ala Ala Phe Ile Asn His Gln Asn Pro Gly Cys Leu
 245 250 255

Asn Tyr Leu Asn Ser Leu Leu Asp Lys Phe Gly Asn Ala Val Pro Thr
 260 265 270

Val Tyr Pro Leu Asp Leu Tyr Ile Arg Leu Ser Met Val Asp Thr Ile
 275 280 285

Glu Arg Leu Gly Ile Ser His His Phe Arg Val Glu Ile Lys Asn Val
 290 295 300

Leu Asp Glu Thr Tyr Arg Cys Trp Val Glu Arg Asp Glu Gln Ile Phe
 305 310 315 320

Met Asp Val Val Thr Cys Ala Leu Ala Phe Arg Leu Leu Arg Ile His
 325 330 335

Gly Tyr Lys Val Ser Pro Asp Gln Leu Ala Glu Ile Thr Asn Glu Leu
340 345 350

Ala Phe Lys Asp Glu Tyr Ala Ala Leu Glu Thr Tyr His Ala Ser Gln
355 360 365

Ile Leu Tyr Gln Glu Asp Leu Ser Ser Gly Lys Gln Ile Leu Lys Ser
370 375 380

Ala Asp Phe Leu Lys Gly Ile Leu Ser Thr Asp Ser Asn Arg Leu Ser
385 390 395 400

Lys Leu Ile His Lys Glu Val Glu Asn Ala Leu Lys Phe Pro Ile Asn
405 410 415

Thr Gly Leu Glu Arg Ile Asn Thr Arg Arg Asn Ile Gln Leu Tyr Asn
420 425 430

Val Asp Asn Thr Arg Ile Leu Lys Thr Thr Tyr His Ser Ser Asn Ile
435 440 445

Ser Asn Thr Tyr Tyr Leu Arg Leu Ala Val Glu Asp Phe Tyr Thr Cys
450 455 460

Gln Ser Ile Tyr Arg Glu Glu Leu Lys Gly Leu Glu Arg Trp Val Val
465 470 475 480

Gln Asn Lys Leu Asp Gln Leu Lys Phe Ala Arg Gln Lys Thr Ala Tyr
485 490 495

Cys Tyr Phe Ser Val Ala Ala Thr Leu Ser Ser Pro Glu Leu Ser Asp
500 505 510

Ala Arg Ile Ser Trp Ala Lys Asn Gly Ile Leu Thr Thr Val Val Asp
515 520 525

Asp Phe Phe Asp Ile Gly Gly Thr Ile Asp Glu Leu Thr Asn Leu Ile
530 535 540

Gln Cys Val Glu Lys Trp Asn Val Asp Val Asp Lys Asp Cys Cys Ser
545 550 555 560

Glu His Val Arg Ile Leu Phe Leu Ala Leu Lys Asp Ala Ile Cys Trp
565 570 575

Ile Gly Asp Glu Ala Phe Lys Trp Gln Ala Arg Asp Val Thr Ser His
580 585 590

Val Ile Gln Thr Trp Leu Glu Leu Met Asn Ser Met Leu Arg Glu Ala
595 600 605

Ile Trp Thr Arg Asp Ala Tyr Val Pro Thr Leu Asn Glu Tyr Met Glu
610 615 620

Asn Ala Tyr Val Ser Phe Ala Leu Gly Pro Ile Val Lys Pro Ala Ile
625 630 635 640

Tyr Phe Val Gly Pro Lys Leu Ser Glu Glu Ile Val Glu Ser Ser Glu
645 650 655

Tyr His Asn Leu Phe Lys Leu Met Ser Thr Gln Gly Arg Leu Leu Asn
660 665 670

Asp Ile His Ser Phe Lys Arg Glu Phe Lys Glu Gly Lys Leu Asn Ala
675 680 685

Val Ala Leu His Leu Ser Asn Gly Glu Ser Gly Lys Val Glu Glu Glu
690 695 700

Val Val Glu Glu Met Met Met Met Ile Lys Asn Lys Arg Lys Glu Leu
705 710 715 720

Met Lys Leu Ile Phe Glu Glu Asn Gly Ser Ile Val Pro Arg Ala Cys
725 730 735

Lys Asp Ala Phe Trp Asn Met Cys His Val Leu Asn Phe Phe Tyr Ala
740 745 750

Asn Asp Asp Gly Phe Thr Gly Asn Thr Ile Leu Asp Thr Val Lys Asp
755 760 765

Ile Ile Tyr Asn Pro Leu Val Leu Val Asn Glu Asn Glu Glu Gln Arg
770 775 780

<210> 385

<211> 787

<212> PRT

<213> Stevia rebaudiana

<400> 385

Met Lys Thr Gly Phe Ile Ser Pro Ala Thr Val Phe His His Arg Ile
1 5 10 15

Ser Pro Ala Thr Thr Phe Arg His His Leu Ser Pro Ala Thr Thr Asn
20 25 30

Ser Thr Gly Ile Val Ala Leu Arg Asp Ile Asn Phe Arg Cys Lys Ala
35 40 45

Val Ser Lys Glu Tyr Ser Asp Leu Leu Gln Lys Asp Glu Ala Ser Phe
50 55 60

Thr Lys Trp Asp Asp Asp Lys Val Lys Asp His Leu Asp Thr Asn Lys
65 70 75 80

Asn Leu Tyr Pro Asn Asp Glu Ile Lys Glu Phe Val Glu Ser Val Lys
85 90 95

Ala Met Phe Gly Ser Met Asn Asp Gly Glu Ile Asn Val Ser Ala Tyr
100 105 110

Asp Thr Ala Trp Val Ala Leu Val Gln Asp Val Asp Gly Ser Gly Ser
115 120 125

Pro Gln Phe Pro Ser Ser Leu Glu Trp Ile Ala Asn Asn Gln Leu Ser
130 135 140

Asp Gly Ser Trp Gly Asp His Leu Leu Phe Ser Ala His Asp Arg Ile
145 150 155 160

Ile Asn Thr Leu Ala Cys Val Ile Ala Leu Thr Ser Trp Asn Val His
165 170 175

Pro Ser Lys Cys Glu Lys Gly Leu Asn Phe Leu Arg Glu Asn Ile Cys
180 185 190

Lys Leu Glu Asp Glu Asn Ala Glu His Met Pro Ile Gly Phe Glu Val
195 200 205

Thr Phe Pro Ser Leu Ile Asp Ile Ala Lys Lys Leu Asn Ile Glu Val
210 215 220

Pro Glu Asp Thr Pro Ala Leu Lys Glu Ile Tyr Ala Arg Arg Asp Ile
225 230 235 240

Lys Leu Thr Lys Ile Pro Met Glu Val Leu His Lys Val Pro Thr Thr
245 250 255

Leu Leu His Ser Leu Glu Gly Met Pro Asp Leu Glu Trp Glu Lys Leu
 260 265 270

Leu Lys Leu Gln Cys Lys Asp Gly Ser Phe Leu Phe Ser Pro Ser Ser
 275 280 285

Thr Ala Phe Ala Leu Met Gln Thr Lys Asp Glu Lys Cys Leu Gln Tyr
 290 295 300

Leu Thr Asn Ile Val Thr Lys Phe Asn Gly Gly Val Pro Asn Val Tyr
 305 310 315 320

Pro Val Asp Leu Phe Glu His Ile Trp Val Val Asp Arg Leu Gln Arg
 325 330 335

Leu Gly Ile Ala Arg Tyr Phe Lys Ser Glu Ile Lys Asp Cys Val Glu
 340 345 350

Tyr Ile Asn Lys Tyr Trp Thr Lys Asn Gly Ile Cys Trp Ala Arg Asn
 355 360 365

Thr His Val Gln Asp Ile Asp Asp Thr Ala Met Gly Phe Arg Val Leu
 370 375 380

Arg Ala His Gly Tyr Asp Val Thr Pro Asp Val Phe Arg Gln Phe Glu
 385 390 395 400

Lys Asp Gly Lys Phe Val Cys Phe Ala Gly Gln Ser Thr Gln Ala Val
 405 410 415

Thr Gly Met Phe Asn Val Tyr Arg Ala Ser Gln Met Leu Phe Pro Gly
 420 425 430

Glu Arg Ile Leu Glu Asp Ala Lys Lys Phe Ser Tyr Asn Tyr Leu Lys
 435 440 445

Glu Lys Gln Ser Thr Asn Glu Leu Leu Asp Lys Trp Ile Ile Ala Lys
 450 455 460

Asp Leu Pro Gly Glu Val Gly Tyr Ala Leu Asp Ile Pro Trp Tyr Ala
 465 470 475 480

Ser Leu Pro Arg Leu Glu Thr Arg Tyr Tyr Leu Glu Gln Tyr Gly Gly
 485 490 495

Glu Asp Asp Val Trp Ile Gly Lys Thr Leu Tyr Arg Met Gly Tyr Val
 500 505 510

Ser Asn Asn Thr Tyr Leu Glu Met Ala Lys Leu Asp Tyr Asn Asn Tyr
 515 520 525

Val Ala Val Leu Gln Leu Glu Trp Tyr Thr Ile Gln Gln Trp Tyr Val
 530 535 540

Asp Ile Gly Ile Glu Lys Phe Glu Ser Asp Asn Ile Lys Ser Val Leu
 545 550 555 560

Val Ser Tyr Tyr Leu Ala Ala Ala Ser Ile Phe Glu Pro Glu Arg Ser
 565 570 575

Lys Glu Arg Ile Ala Trp Ala Lys Thr Thr Ile Leu Val Asp Lys Ile
 580 585 590

Thr Ser Ile Phe Asp Ser Ser Gln Ser Ser Lys Glu Asp Ile Thr Ala
 595 600 605

Phe Ile Asp Lys Phe Arg Asn Lys Ser Ser Ser Lys Lys His Ser Ile
 610 615 620

Asn Gly Glu Pro Trp His Glu Val Met Val Ala Leu Lys Lys Thr Leu
 625 630 635 640

His Gly Phe Ala Leu Asp Ala Leu Met Thr His Ser Gln Asp Ile His
 645 650 655

Pro Gln Leu His Gln Ala Trp Glu Met Trp Leu Thr Lys Leu Gln Asp
 660 665 670

Gly Val Asp Val Thr Ala Glu Leu Met Val Gln Met Ile Asn Met Thr
 675 680 685

Ala Gly Arg Trp Val Ser Lys Glu Leu Leu Thr His Pro Gln Tyr Gln
 690 695 700

Arg Leu Ser Thr Val Thr Asn Ser Val Cys His Asp Ile Thr Lys Leu
 705 710 715 720

His Asn Phe Lys Glu Asn Ser Thr Thr Val Asp Ser Lys Val Gln Glu
 725 730 735

Leu Val Gln Leu Val Phe Ser Asp Thr Pro Asp Asp Leu Asp Gln Asp

740

745

750

Met Lys Gln Thr Phe Leu Thr Val Met Lys Thr Phe Tyr Tyr Lys Ala
 755 760 765

Trp Cys Asp Pro Asn Thr Ile Asn Asp His Ile Ser Lys Val Phe Glu
 770 775 780

Ile Val Ile
 785

<210> 386
 <211> 862
 <212> PRT
 <213> Taxus brevifolia

<400> 386

Met Ala Gln Leu Ser Phe Asn Ala Ala Leu Lys Met Asn Ala Leu Gly
 1 5 10 15

Asn Lys Ala Ile His Asp Pro Thr Asn Cys Arg Ala Lys Ser Glu Arg
 20 25 30

Gln Met Met Trp Val Cys Ser Arg Ser Gly Arg Thr Arg Val Lys Met
 35 40 45

Ser Arg Gly Ser Gly Gly Pro Gly Pro Val Val Met Met Ser Ser Ser
 50 55 60

Thr Gly Thr Ser Lys Val Val Ser Glu Thr Ser Ser Thr Ile Val Asp
 65 70 75 80

Asp Ile Pro Arg Leu Ser Ala Asn Tyr His Gly Asp Leu Trp His His
 85 90 95

Asn Val Ile Gln Thr Leu Glu Thr Pro Phe Arg Glu Ser Ser Thr Tyr
 100 105 110

Gln Glu Arg Ala Asp Glu Leu Val Val Lys Ile Lys Asp Met Phe Asn
 115 120 125

Ala Leu Gly Asp Gly Asp Ile Ser Pro Ser Ala Tyr Asp Thr Ala Trp
 130 135 140

Val Ala Arg Leu Ala Thr Ile Ser Ser Asp Gly Ser Glu Lys Pro Arg
 145 150 155 160

Phe Pro Gln Ala Leu Asn Trp Val Phe Asn Asn Gln Leu Gln Asp Gly
165 170 175
Ser Trp Gly Ile Glu Ser His Phe Ser Leu Cys Asp Arg Leu Leu Asn
180 185 190
Thr Thr Asn Ser Val Ile Ala Leu Ser Val Trp Lys Thr Gly His Ser
195 200 205
Gln Val Gln Gln Gly Ala Glu Phe Ile Ala Glu Asn Leu Arg Leu Leu
210 215 220
Asn Glu Glu Asp Glu Leu Ser Pro Asp Phe Gln Ile Ile Phe Pro Ala
225 230 235 240
Leu Leu Gln Lys Ala Lys Ala Leu Gly Ile Asn Leu Pro Tyr Asp Leu
245 250 255
Pro Phe Ile Lys Tyr Leu Ser Thr Thr Arg Glu Ala Arg Leu Thr Asp
260 265 270
Val Ser Ala Ala Ala Asp Asn Ile Pro Ala Asn Met Leu Asn Ala Leu
275 280 285
Glu Gly Leu Glu Glu Val Ile Asp Trp Asn Lys Ile Met Arg Phe Gln
290 295 300
Ser Lys Asp Gly Ser Phe Leu Ser Ser Pro Ala Ser Thr Ala Cys Val
305 310 315 320
Leu Met Asn Thr Gly Asp Glu Lys Cys Phe Thr Phe Leu Asn Asn Leu
325 330 335
Leu Asp Lys Phe Gly Gly Cys Val Pro Cys Met Tyr Ser Ile Asp Leu
340 345 350
Leu Glu Arg Leu Ser Leu Val Asp Asn Ile Glu His Leu Gly Ile Gly
355 360 365
Arg His Phe Lys Gln Glu Ile Lys Gly Ala Leu Asp Tyr Val Tyr Arg
370 375 380
His Trp Ser Glu Arg Gly Ile Gly Trp Gly Arg Asp Ser Leu Val Pro
385 390 395 400

Asp Leu Asn Thr Thr Ala Leu Gly Leu Arg Thr Leu Arg Met His Gly
 405 410 415
 Tyr Asn Val Ser Ser Asp Val Leu Asn Asn Phe Lys Asp Glu Asn Gly
 420 425 430
 Arg Phe Phe Ser Ser Ala Gly Gln Thr His Val Glu Leu Arg Ser Val
 435 440 445
 Val Asn Leu Phe Arg Ala Ser Asp Leu Ala Phe Pro Asp Glu Arg Ala
 450 455 460
 Met Asp Asp Ala Arg Lys Phe Ala Glu Pro Tyr Leu Arg Glu Ala Leu
 465 470 475 480
 Ala Thr Lys Ile Ser Thr Asn Thr Lys Leu Phe Lys Glu Ile Glu Tyr
 485 490 495
 Val Val Glu Tyr Pro Trp His Met Ser Ile Pro Arg Leu Glu Ala Arg
 500 505 510
 Ser Tyr Ile Asp Ser Tyr Asp Asp Asn Tyr Val Trp Gln Arg Lys Thr
 515 520 525
 Leu Tyr Arg Met Pro Ser Leu Ser Asn Ser Lys Cys Leu Glu Leu Ala
 530 535 540
 Lys Leu Asp Phe Asn Ile Val Gln Ser Leu His Gln Glu Glu Leu Lys
 545 550 555 560
 Leu Leu Thr Arg Trp Trp Lys Glu Ser Gly Met Ala Asp Ile Asn Phe
 565 570 575
 Thr Arg His Arg Val Ala Glu Val Tyr Phe Ser Ser Ala Thr Phe Glu
 580 585 590
 Pro Glu Tyr Ser Ala Thr Arg Ile Ala Phe Thr Lys Ile Gly Cys Leu
 595 600 605
 Gln Val Leu Phe Asp Asp Met Ala Asp Ile Phe Ala Thr Leu Asp Glu
 610 615 620
 Leu Lys Ser Phe Thr Glu Gly Val Lys Arg Trp Asp Thr Ser Leu Leu
 625 630 635 640
 His Glu Ile Pro Glu Cys Met Gln Thr Cys Phe Lys Val Trp Phe Lys

Met Phe Ala Lys Phe Asp Met Leu Glu Glu Glu Ala Arg Ala Leu Val
1 5 10 15
Arg Lys Val Gly Asn Ala Val Asp Pro Ile Tyr Gly Phe Ser Thr Thr
20 25 30
Ser Cys Gln Ile Tyr Asp Thr Ala Trp Ala Ala Met Ile Ser Lys Glu
35 40 45
Glu His Gly Asp Lys Val Trp Leu Phe Pro Glu Ser Phe Lys Tyr Leu
50 55 60
Leu Glu Lys Gln Gly Glu Asp Gly Ser Trp Glu Arg His Pro Arg Ser
65 70 75 80
Lys Thr Val Gly Val Leu Asn Thr Ala Ala Ala Cys Leu Ala Leu Leu
85 90 95
Arg His Val Lys Asn Pro Leu Gln Leu Gln Asp Ile Ala Ala Gln Asp
100 105 110
Ile Glu Leu Arg Ile Gln Arg Gly Leu Arg Ser Leu Glu Glu Gln Leu
115 120 125
Ile Ala Trp Asp Asp Val Leu Asp Thr Asn His Ile Gly Val Glu Met
130 135 140
Ile Val Pro Ala Leu Leu Asp Tyr Leu Gln Ala Glu Asp Glu Asn Val
145 150 155 160
Asp Phe Glu Phe Glu Ser His Ser Leu Leu Met Gln Met Tyr Lys Glu
165 170 175
Lys Met Ala Arg Phe Ser Pro Glu Ser Leu Tyr Arg Ala Arg Pro Ser
180 185 190
Ser Ala Leu His Asn Leu Glu Ala Leu Ile Gly Lys Leu Asp Phe Asp
195 200 205
Lys Val Gly His His Leu Tyr Asn Gly Ser Met Met Ala Ser Pro Ser
210 215 220
Ser Thr Ala Ala Phe Leu Met His Ala Ser Pro Trp Ser His Glu Ala
225 230 235 240

Glu Ala Tyr Leu Arg His Val Phe Glu Ala Gly Thr Gly Lys Gly Ser
245 250 255

Gly Gly Phe Pro Gly Thr Tyr Pro Thr Thr Tyr Phe Glu Leu Asn Trp
260 265 270

Val Leu Ser Thr Leu Met Lys Ser Gly Phe Thr Leu Ser Asp Leu Glu
275 280 285

Cys Asp Glu Leu Ser Ser Ile Ala Asn Thr Ile Ala Glu Gly Phe Glu
290 295 300

Cys Asp His Gly Val Ile Gly Phe Ala Pro Arg Ala Val Asp Val Asp
305 310 315 320

Asp Thr Ala Lys Gly Leu Leu Thr Leu Thr Leu Leu Gly Met Asp Glu
325 330 335

Gly Val Ser Pro Ala Pro Met Ile Ala Met Phe Glu Ala Lys Asp His
340 345 350

Phe Leu Thr Phe Leu Gly Glu Arg Asp Pro Ser Phe Thr Ser Asn Cys
355 360 365

His Val Leu Leu Ser Leu Leu His Arg Thr Asp Leu Leu Gln Tyr Leu
370 375 380

Pro Gln Ile Arg Lys Thr Thr Thr Phe Leu Cys Glu Ala Trp Trp Ala
385 390 395 400

Cys Asp Gly Gln Ile Lys Asp Lys Trp His Leu Ser His Leu Tyr Pro
405 410 415

Thr Met Leu Met Val Gln Ala Phe Ala Glu Ile Leu Leu Lys Ser Ala
420 425 430

Glu Gly Glu Pro Leu His Asp Ala Phe Asp Ala Ala Thr Leu Ser Arg
435 440 445

Val Ser Ile Cys Val Phe Gln Ala Cys Leu Arg Thr Leu Leu Ala Gln
450 455 460

Ser Gln Asp Gly Ser Trp His Gly Gln Pro Glu Ala Ser Cys Tyr Ala
465 470 475 480

Val Leu Thr Leu Ala Glu Ser Gly Arg Leu Val Leu Leu Gln Ala Leu

485								490				495				
Gln	Pro	Gln	Ile	Ala	Ala	Ala	Met	Glu	Lys	Ala	Ala	Asp	Val	Met	Gln	
			500					505					510			
Ala	Gly	Arg	Trp	Ser	Cys	Ser	Asp	His	Asp	Cys	Asp	Trp	Thr	Ser	Lys	
		515					520					525				
Thr	Ala	Tyr	Arg	Val	Asp	Leu	Val	Ala	Ala	Ala	Tyr	Arg	Leu	Ala	Ala	
		530					535					540				
Met	Lys	Ala	Ser	Ser	Asn	Leu	Thr	Phe	Thr	Val	Asp	Asp	Asn	Val	Ser	
545					550					555					560	
Lys	Arg	Ser	Asn	Gly	Phe	Gln	Gln	Leu	Val	Gly	Arg	Thr	Asp	Leu	Phe	
			565					570					575			
Ser	Gly	Val	Pro	Ala	Trp	Glu	Leu	Gln	Ala	Ser	Phe	Leu	Glu	Ser	Ala	
			580					585					590			
Leu	Phe	Val	Pro	Leu	Leu	Arg	Asn	His	Arg	Leu	Asp	Val	Phe	Asp	Arg	
		595					600					605				
Asp	Asp	Ile	Lys	Val	Ser	Lys	Asp	His	Tyr	Leu	Asp	Met	Ile	Pro	Phe	
		610					615					620				
Thr	Trp	Val	Gly	Cys	Asn	Asn	Arg	Ser	Arg	Thr	Tyr	Val	Ser	Thr	Ser	
625					630					635					640	
Phe	Leu	Phe	Asp	Met	Met	Ile	Ile	Ser	Met	Leu	Gly	Tyr	Gln	Ile	Asp	
			645					650					655			
Glu	Phe	Phe	Glu	Ala	Glu	Ala	Ala	Pro	Ala	Phe	Ala	Gln	Cys	Ile	Gly	
			660					665					670			
Gln	Leu	His	Gln	Val	Val	Asp	Lys	Val	Val	Asp	Glu	Val	Ile	Asp	Glu	
		675					680					685				
Val	Val	Asp	Lys	Val	Val	Gly	Lys	Val	Val	Gly	Lys	Val	Val	Gly	Lys	
		690					695					700				
Val	Val	Asp	Glu	Arg	Val	Asp	Ser	Pro	Thr	His	Glu	Ala	Ile	Ala	Ile	
705					710					715					720	
Cys	Asn	Ile	Glu	Ala	Ser	Leu	Arg	Arg	Phe	Val	Asp	His	Val	Leu	His	
			725					730					735			

His Gln His Val Leu His Ala Ser Gln Gln Glu Gln Asp Ile Leu Trp
740 745 750

Arg Glu Leu Arg Ala Phe Leu His Ala His Val Val Gln Met Ala Asp
755 760 765

Asn Ser Thr Leu Ala Pro Pro Gly Arg Thr Phe Phe Asp Trp Val Arg
770 775 780

Thr Thr Ala Ala Asp His Val Ala Cys Ala Tyr Ser Phe Ala Phe Ala
785 790 795 800

Cys Cys Ile Thr Ser Ala Thr Ile Gly Gln Gly Gln Ser Met Phe Ala
805 810 815

Thr Val Asn Glu Leu Tyr Leu Val Gln Ala Ala Ala Arg His Met Thr
820 825 830

Thr Met Cys Arg Met Cys Asn Asp Ile Gly Ser Val Asp Arg Asp Phe
835 840 845

Ile Glu Ala Asn Ile Asn Ser Val His Phe Pro Glu Phe Ser Thr Leu
850 855 860

Ser Leu Val Ala Asp Lys Lys Lys Ala Leu Ala Arg Leu Ala Ala Tyr
865 870 875 880

Glu Lys Ser Cys Leu Thr His Thr Leu Asp Gln Phe Glu Asn Glu Val
885 890 895

Leu Gln Ser Pro Arg Val Ser Ser Ala Ala Ser Gly Asp Phe Arg Thr
900 905 910

Arg Lys Val Ala Val Val Arg Phe Phe Ala Asp Val Thr Asp Phe Tyr
915 920 925

Asp Gln Leu Tyr Ile Leu Arg Asp Leu Ser Ser Ser Leu Lys His Val
930 935 940

Gly Thr
945

<210> 388
<211> 868
<212> PRT

<213> *Abies grandis*

<400> 388

Met Ala Met Pro Ser Ser Ser Leu Ser Ser Gln Ile Pro Thr Ala Ala
1 5 10 15

His His Leu Thr Ala Asn Ala Gln Ser Ile Pro His Phe Ser Thr Thr
20 25 30

Leu Asn Ala Gly Ser Ser Ala Ser Lys Arg Arg Ser Leu Tyr Leu Arg
35 40 45

Trp Gly Lys Gly Ser Asn Lys Ile Ile Ala Cys Val Gly Glu Gly Gly
50 55 60

Ala Thr Ser Val Pro Tyr Gln Ser Ala Glu Lys Asn Asp Ser Leu Ser
65 70 75 80

Ser Ser Thr Leu Val Lys Arg Glu Phe Pro Pro Gly Phe Trp Lys Asp
85 90 95

Asp Leu Ile Asp Ser Leu Thr Ser Ser His Lys Val Ala Ala Ser Asp
100 105 110

Glu Lys Arg Ile Glu Thr Leu Ile Ser Glu Ile Lys Asn Met Phe Arg
115 120 125

Cys Met Gly Tyr Gly Glu Thr Asn Pro Ser Ala Tyr Asp Thr Ala Trp
130 135 140

Val Ala Arg Ile Pro Ala Val Asp Gly Ser Asp Asn Pro His Phe Pro
145 150 155 160

Glu Thr Val Glu Trp Ile Leu Gln Asn Gln Leu Lys Asp Gly Ser Trp
165 170 175

Gly Glu Gly Phe Tyr Phe Leu Ala Tyr Asp Arg Ile Leu Ala Thr Leu
180 185 190

Ala Cys Ile Ile Thr Leu Thr Leu Trp Arg Thr Gly Glu Thr Gln Val
195 200 205

Gln Lys Gly Ile Glu Phe Phe Arg Thr Gln Ala Gly Lys Met Glu Asp
210 215 220

Glu Ala Asp Ser His Arg Pro Ser Gly Phe Glu Ile Val Phe Pro Ala

225		230		235		240									
Met	Leu	Lys	Glu	Ala	Lys	Ile	Leu	Gly	Leu	Asp	Leu	Pro	Tyr	Asp	Leu
			245					250						255	
Pro	Phe	Leu	Lys	Gln	Ile	Ile	Glu	Lys	Arg	Glu	Ala	Lys	Leu	Lys	Arg
			260					265					270		
Ile	Pro	Thr	Asp	Val	Leu	Tyr	Ala	Leu	Pro	Thr	Thr	Leu	Leu	Tyr	Ser
		275					280					285			
Leu	Glu	Gly	Leu	Gln	Glu	Ile	Val	Asp	Trp	Gln	Lys	Ile	Met	Lys	Leu
	290					295					300				
Gln	Ser	Lys	Asp	Gly	Ser	Phe	Leu	Ser	Ser	Pro	Ala	Ser	Thr	Ala	Ala
305					310					315					320
Val	Phe	Met	Arg	Thr	Gly	Asn	Lys	Lys	Cys	Leu	Asp	Phe	Leu	Asn	Phe
				325					330					335	
Val	Leu	Lys	Lys	Phe	Gly	Asn	His	Val	Pro	Cys	His	Tyr	Pro	Leu	Asp
			340					345					350		
Leu	Phe	Glu	Arg	Leu	Trp	Ala	Val	Asp	Thr	Val	Glu	Arg	Leu	Gly	Ile
		355					360					365			
Asp	Arg	His	Phe	Lys	Glu	Glu	Ile	Lys	Glu	Ala	Leu	Asp	Tyr	Val	Tyr
	370					375					380				
Ser	His	Trp	Asp	Glu	Arg	Gly	Ile	Gly	Trp	Ala	Arg	Glu	Asn	Pro	Val
385					390					395					400
Pro	Asp	Ile	Asp	Asp	Thr	Ala	Met	Gly	Leu	Arg	Ile	Leu	Arg	Leu	His
				405					410					415	
Gly	Tyr	Asn	Val	Ser	Ser	Asp	Val	Leu	Lys	Thr	Phe	Arg	Asp	Glu	Asn
			420					425					430		
Gly	Glu	Phe	Phe	Cys	Phe	Leu	Gly	Gln	Thr	Gln	Arg	Gly	Val	Thr	Asp
		435					440					445			
Met	Leu	Asn	Val	Asn	Arg	Cys	Ser	His	Val	Ser	Phe	Pro	Gly	Glu	Thr
	450					455					460				
Ile	Met	Glu	Glu	Ala	Lys	Leu	Cys	Thr	Glu	Arg	Tyr	Leu	Arg	Asn	Ala
465					470					475					480

Leu Glu Asn Val Asp Ala Phe Asp Lys Trp Ala Phe Lys Lys Asn Ile
485 490 495

Arg Gly Glu Val Glu Tyr Ala Leu Lys Tyr Pro Trp His Lys Ser Met
500 505 510

Pro Arg Leu Glu Ala Arg Ser Tyr Ile Glu Asn Tyr Gly Pro Asp Asp
515 520 525

Val Trp Leu Gly Lys Thr Val Tyr Met Met Pro Tyr Ile Ser Asn Glu
530 535 540

Lys Tyr Leu Glu Leu Ala Lys Leu Asp Phe Asn Lys Val Gln Ser Ile
545 550 555 560

His Gln Thr Glu Leu Gln Asp Leu Arg Arg Trp Trp Lys Ser Ser Gly
565 570 575

Phe Thr Asp Leu Asn Phe Thr Arg Glu Arg Val Thr Glu Ile Tyr Phe
580 585 590

Ser Pro Ala Ser Phe Ile Phe Glu Pro Glu Phe Ser Lys Cys Arg Glu
595 600 605

Val Tyr Thr Lys Thr Ser Asn Phe Thr Val Ile Leu Asp Asp Leu Tyr
610 615 620

Asp Ala His Gly Ser Leu Asp Asp Leu Lys Leu Phe Thr Glu Ser Val
625 630 635 640

Lys Arg Trp Asp Leu Ser Leu Val Asp Gln Met Pro Gln Gln Met Lys
645 650 655

Ile Cys Phe Val Gly Phe Tyr Asn Thr Phe Asn Asp Ile Ala Lys Glu
660 665 670

Gly Arg Glu Arg Gln Gly Arg Asp Val Leu Gly Tyr Ile Gln Asn Val
675 680 685

Trp Lys Val Gln Leu Glu Ala Tyr Thr Lys Glu Ala Glu Trp Ser Glu
690 695 700

Ala Lys Tyr Val Pro Ser Phe Asn Glu Tyr Ile Glu Asn Ala Ser Val
705 710 715 720

Ser Ile Ala Leu Gly Thr Val Val Leu Ile Ser Ala Leu Phe Thr Gly
725 730 735

Glu Val Leu Thr Asp Glu Val Leu Ser Lys Ile Asp Arg Glu Ser Arg
740 745 750

Phe Leu Gln Leu Met Gly Leu Thr Gly Arg Leu Val Asn Asp Thr Lys
755 760 765

Thr Tyr Gln Ala Glu Arg Gly Gln Gly Glu Val Ala Ser Ala Ile Gln
770 775 780

Cys Tyr Met Lys Asp His Pro Lys Ile Ser Glu Glu Glu Ala Leu Gln
785 790 795 800

His Val Tyr Ser Val Met Glu Asn Ala Leu Glu Glu Leu Asn Arg Glu
805 810 815

Phe Val Asn Asn Lys Ile Pro Asp Ile Tyr Lys Arg Leu Val Phe Glu
820 825 830

Thr Ala Arg Ile Met Gln Leu Phe Tyr Met Gln Gly Asp Gly Leu Thr
835 840 845

Leu Ser His Asp Met Glu Ile Lys Glu His Val Lys Asn Cys Leu Phe
850 855 860

Gln Pro Val Ala
865

<210> 389
<211> 785
<212> PRT
<213> Cucumis sativus

<400> 389

Met Asn Leu Ser Arg Pro Thr Asn Leu Gly Cys Phe Thr Ala Ser Ser
1 5 10 15

Ser Ala Ser Leu Phe Pro Gly Leu Asp Val Gly Thr Lys Thr Lys Thr
20 25 30

Gly Ala Leu Arg Phe Glu Glu Thr Lys Glu Arg Ile Lys Lys Leu Phe
35 40 45

Lys Asn Val Glu Leu Ser Ile Ser Ala Tyr Asp Thr Ala Trp Val Ala

50	55	60
Met Val Pro Ser Pro Asn Ser Leu Asn Lys Pro Leu Phe Pro Glu Cys 65 70 75 80		
Ile Asn Trp Val Leu Asp His Gln Asn Pro Asp Gly Ser Trp Gly Ile 85 90 95		
Leu His Asp His Gln Leu Val Met Lys Ala Thr Leu Leu Ser Thr Leu 100 105 110		
Ala Cys Val Leu Thr Leu Lys Arg Trp Asp Ile Gly Asp Asp His Met 115 120 125		
Ser Lys Ala Leu Ser Phe Ile Lys Ser Asn Ile Ala Ser Ala Thr Asp 130 135 140		
Glu Asn Gln Arg Ser Pro Val Gly Phe Asp Ile Ile Phe Pro Gly Met 145 150 155 160		
Ile Glu Tyr Ala Lys Asp Leu Asn Leu Asn Leu Pro Leu Ala Ser Met 165 170 175		
Asn Val Asp Ala Leu Val Gln Lys Lys Glu Leu Glu Leu Arg Ser Cys 180 185 190		
Cys Ser Asn Ser Glu Gly Gly Lys Ala Tyr Leu Ala Tyr Val Ser Glu 195 200 205		
Gly Ile Gly Lys Leu Gln Asp Trp Glu Met Val Met Arg Tyr Gln Arg 210 215 220		
Lys Asn Gly Ser Leu Phe Ser Ser Pro Ser Thr Thr Ala Val Ala Phe 225 230 235 240		
Met His Arg Asn Asp Asp Gly Cys Phe Asn Tyr Leu Arg Ser Val Leu 245 250 255		
Gln Lys Phe His Ser Ser Val Pro Ala Ile Tyr Pro Leu Asp Ile Tyr 260 265 270		
Ala Arg Leu His Met Val Asp Ser Leu Gln Lys Leu Gly Ile Asp Gly 275 280 285		
His Phe Lys Asp Glu Ile Arg Ser Val Leu Asp Glu Thr Tyr Ser Cys 290 295 300		

Trp Met Gln Gly Glu Glu Asn Ile Phe Leu Asp Ala Ser Thr Cys Ala
305 310 315 320

Met Ala Phe Arg Met Leu Arg Val Glu Gly Tyr Asp Val Ser Ser Asp
325 330 335

Gln Leu Thr Gln Phe Ser Glu Gly Leu Phe Ser Asn Cys Leu Gly Gly
340 345 350

His Leu Lys Asp Phe Ser Ala Ser Leu Glu Leu Phe Lys Ala Ser Gln
355 360 365

Ile Ile Ile Tyr Pro Asp Glu Phe Ile Leu Glu Asn Ile Asn Ser Trp
370 375 380

Thr Ser Arg Phe Leu Asn His Gly Leu Ser Ser Gly Ser Val His Ser
385 390 395 400

Asp Arg Thr Glu Arg Leu Val Lys Gln Glu Ala Val Asn Ala Phe Glu
405 410 415

Phe Pro Tyr Asn Ser Thr Leu Glu Arg Leu Ser Asn Lys Arg Ala Leu
420 425 430

Glu Ser Tyr Ser Gly Asp Ile Val Arg Ile Ser Lys Thr Ala Tyr Ala
435 440 445

Cys Leu Asn Phe Gly His Gln Asp Phe Leu Glu Leu Ala Val Glu Asp
450 455 460

Phe Asn Thr Leu Gln Gly Ile His Arg Lys Glu Leu Lys Glu Leu Glu
465 470 475 480

Lys Trp Val Ile Glu Asn Lys Leu Asp Lys Leu Lys Phe Ala Arg Gln
485 490 495

Lys Leu Ala Tyr Cys Tyr Phe Ser Ala Ala Ala Thr Leu Thr Ser Pro
500 505 510

Glu Leu Cys Asp Ala Arg Leu Ser Trp Ala Lys Asn Gly Val Leu Thr
515 520 525

Thr Val Val Asp Asp Phe Phe Asp Val Gly Gly Ser Glu Glu Glu Leu
530 535 540

Val Asn Leu Ile Gln Leu Val Glu Lys Trp Asp Ala Ser Gly Glu Thr
 545 550 555 560

Gly Tyr Cys Ser Lys Glu Val Glu Ile Ile Phe Leu Ala Leu His Ser
 565 570 575

Thr Ile Cys Glu Ile Gly Lys Lys Ala Leu Pro Trp Gln Gly Arg Ser
 580 585 590

Val Met Arg Asn Val Ile Asp Ile Trp Leu Ala Leu Leu Glu Ser Met
 595 600 605

Arg Lys Glu Ala Glu Trp Leu Lys Asn Lys Val Val Pro Ser Leu Asp
 610 615 620

Glu Tyr Met Glu Asn Gly Tyr Val Ser Phe Ala Leu Gly Pro Ile Val
 625 630 635 640

Leu Pro Thr Leu Tyr Phe Val Gly Pro Lys Leu Pro Glu Glu Ile Val
 645 650 655

Gly Asn Cys Glu Tyr Lys Lys Leu Phe Lys Leu Met Ser Thr Ser Gly
 660 665 670

Arg Leu Leu Asn Asp Thr Arg Thr Phe Asp Arg Glu Ser Ser Glu Gly
 675 680 685

Lys Leu Asn Ala Leu Ser Leu Tyr Met Ile Ser Ala Gly Gly Lys Leu
 690 695 700

Thr Lys Glu Glu Ala Thr Glu Ala Met Lys Gly Asp Val Asp Arg Thr
 705 710 715 720

Arg Arg Glu Leu Leu Arg Leu Val Leu Gln Glu Asn Ser Thr Ile Pro
 725 730 735

Arg Ala Cys Lys Asp Leu Phe Trp Lys Met Ser Cys Val Val His Leu
 740 745 750

Phe Tyr Arg Lys Asp Asp Gly Phe Thr Ser His Glu Leu Met Asn Ser
 755 760 765

Ala Lys Ala Leu Phe Glu Gln Pro Met Val Leu Asp Glu Leu Leu Asn
 770 775 780

Lys
785

<210> 390
<211> 788
<212> PRT
<213> Lactuca sativa

<400> 390

Met Asn Ile Ala Gln Ile Thr Ser Ser Ala Met Leu Val Pro Ser Ser
1 5 10 15

His Ile Pro His Arg Ser Trp Val Val Asn Cys Cys Met Val Gln Tyr
20 25 30

Asn Pro Ser Gly Leu Arg Thr Ala Ser Ser Gln Ala Gly Gln Val Asn
35 40 45

Pro Thr Val Met Thr Leu Asp Val Thr Lys Glu Arg Ile Arg Lys Leu
50 55 60

Phe Asn Asn Val Glu Val Ser Val Ser Ser Tyr Asp Thr Ala Trp Val
65 70 75 80

Ala Met Val Pro Ser Pro Asn Ser Pro Lys Ser Pro Cys Phe Pro Asp
85 90 95

Cys Leu Asn Trp Leu Leu Asp Asn Gln Leu Asp Asp Gly Ser Trp Gly
100 105 110

Leu Leu Pro His Gln Ser Pro Leu Ile Lys Asp Thr Leu Ser Ser Thr
115 120 125

Leu Ala Cys Val Leu Ala Leu Lys Arg Trp Asn Val Gly Lys Asp Gln
130 135 140

Ile Asn Lys Gly Leu His Tyr Ile Glu Ser Asn Phe Ala Ser Val Thr
145 150 155 160

Asp Lys Asn Gln Ala Ser Pro Phe Gly Phe Asp Ile Ile Phe Pro Gly
165 170 175

Met Leu Glu Tyr Ala Lys Asp Leu Asp Ile Lys Leu Pro Leu Asn Gln
180 185 190

Thr His Leu Ser Val Met Leu His Glu Arg Glu Leu Glu Leu Arg Arg
195 200 205

Cys His Ser Asn Gly Arg Glu Ala Tyr Leu Ala Tyr Ile Ser Glu Gly
 210 215 220

Leu Gly Asn Leu Asn Asp Trp Asn Met Val Met Lys Tyr Gln Met Lys
 225 230 235 240

Asn Gly Ser Leu Phe Asn Ser Pro Ser Ala Thr Ala Ser Val Leu Ile
 245 250 255

His His Gln Asn Ala Gly Cys Leu His Tyr Leu Thr Ser Leu Leu Asp
 260 265 270

Lys Phe Gly Asn Ala Val Pro Thr Val Tyr Pro Ile Asp Leu Tyr Val
 275 280 285

Arg Leu Ser Met Val Asp Thr Leu Glu Arg Leu Gly Ile Lys Arg His
 290 295 300

Phe Met Val Glu Ile Gln Asn Val Leu Asp Glu Thr Tyr Arg Cys Trp
 305 310 315 320

Val Gln Gly Asp Val Gln Ile Phe Met Asp Val Val Thr Cys Ala Leu
 325 330 335

Ala Phe Arg Val Leu Arg Ser Asn Gly Tyr Glu Val Ser Ser Asp Pro
 340 345 350

Leu Ala Lys Ile Thr Lys Glu Gly Asp Tyr Met Asn Ser Pro Glu Lys
 355 360 365

Pro Phe Lys Asp Val Tyr Thr Ser Leu Glu Val Tyr Lys Ala Ser Gln
 370 375 380

Ile Ile Tyr Gln Glu Glu Leu Ala Phe Arg Glu Gln Asn Leu Thr Ser
 385 390 395 400

Tyr Leu Pro Ser Ser Asn Lys Leu Ser Asn Tyr Ile Leu Lys Glu Val
 405 410 415

Asp Asp Ala Leu Lys Phe Pro Phe Asn Gly Ser Leu Glu Arg Met Ser
 420 425 430

Thr Arg Arg Asn Ile Glu His Tyr Asn Leu Asn His Thr Arg Ile Leu
 435 440 445

Lys Thr Thr Tyr Ser Ser Ser Asn Ile Ser Asn Lys Asp Tyr Leu Lys
 450 455 460

Leu Ala Val Gln Asp Phe Asn Glu Cys Gln Ser Ile Tyr Cys Glu Glu
 465 470 475 480

Leu Lys Asp Leu Glu Arg Trp Val Val Glu Asn Arg Leu Asp Lys Leu
 485 490 495

Lys Phe Ala Arg Gln Lys Thr Ala Tyr Cys Tyr Phe Ser Ala Ala Ser
 500 505 510

Phe Leu Ser Ser Pro Asp Leu Ser Asp Ala Arg Ile Ser Trp Ala Lys
 515 520 525

Ser Ser Ile Leu Thr Thr Val Ile Asp Asp Phe Phe Asp Val Gly Gly
 530 535 540

Ser Met Asp Glu Leu Val Asn Phe Val His Ile Ile Glu Lys Trp Asn
 545 550 555 560

Val Asn Val Glu Asn Asp Cys Cys Ser Glu Glu Val Gly Val Leu Phe
 565 570 575

Leu Ala Leu Lys Asp Ala Val Cys Trp Ile Gly Asp Lys Ala Phe Lys
 580 585 590

Ile Gln Glu Arg Asn Ile Thr Ser His Val Ile Glu Ile Trp Leu Asp
 595 600 605

Leu Val Lys Ser Met Leu Arg Glu Ala Ile Trp Ala Lys Asp Gly Ser
 610 615 620

Ile Pro Thr Ile Asn Glu Tyr Met Glu Asn Gly Tyr Val Ser Phe Ala
 625 630 635 640

Leu Gly Pro Ile Val Leu Pro Thr Leu Tyr Phe Leu Gly Val Lys Leu
 645 650 655

Ser Glu Glu Val Val Gln Ser Ser Glu Tyr His Lys Leu Tyr Glu Val
 660 665 670

Met Ser Thr Gln Gly Arg Leu Met Asn Asp Ile His Ser Phe Lys Arg
 675 680 685

Glu Lys Lys Ala Gly Lys Leu Asn Ala Val Ala Leu Tyr Met Ser Asp
690 695 700

Gly Lys Ser Gly Ser Val Glu Glu Glu Val Val Glu Glu Met Lys Ile
705 710 715 720

Leu Thr Lys Ser Gln Arg Lys Glu Met Met Lys Leu Val Leu Glu Thr
725 730 735

Lys Gly Ser Val Val Pro Arg Val Cys Lys Asp Val Phe Trp Asn Met
740 745 750

Cys Asn Val Leu Asn Leu Phe Tyr Ala Thr Asp Asp Gly Phe Thr Gly
755 760 765

Asn Ala Ile Leu Asp Val Val Lys Glu Ile Ile Tyr Glu Pro Val Ser
770 775 780

His Glu Leu Ile
785

<210> 391
<211> 952
<212> PRT
<213> *Gibberella fujikuroi*

<400> 391

Met Pro Gly Lys Ile Glu Asn Gly Thr Pro Lys Asp Leu Lys Thr Gly
1 5 10 15

Asn Asp Phe Val Ser Ala Ala Lys Ser Leu Leu Asp Arg Ala Phe Lys
20 25 30

Ser His His Ser Tyr Tyr Gly Leu Cys Ser Thr Ser Cys Gln Val Tyr
35 40 45

Asp Thr Ala Trp Val Ala Met Ile Pro Lys Thr Arg Asp Asn Val Lys
50 55 60

Gln Trp Leu Phe Pro Glu Cys Phe His Tyr Leu Leu Lys Thr Gln Ala
65 70 75 80

Ala Asp Gly Ser Trp Gly Ser Leu Pro Thr Thr Gln Thr Ala Gly Ile
85 90 95

Leu Asp Thr Ala Ser Ala Val Leu Ala Leu Leu Cys His Ala Gln Glu
100 105 110

Pro Leu Gln Ile Leu Asp Val Ser Pro Asp Glu Met Gly Leu Arg Ile
 115 120 125

Glu His Gly Val Thr Ser Leu Lys Arg Gln Leu Ala Val Trp Asn Asp
 130 135 140

Val Glu Asp Thr Asn His Ile Gly Val Glu Phe Ile Ile Pro Ala Leu
 145 150 155 160

Leu Ser Met Leu Glu Lys Glu Leu Asp Val Pro Ser Phe Glu Phe Pro
 165 170 175

Cys Arg Ser Ile Leu Glu Arg Met His Gly Glu Lys Leu Gly His Phe
 180 185 190

Asp Leu Glu Gln Val Tyr Gly Lys Pro Ser Ser Leu Leu His Ser Leu
 195 200 205

Glu Ala Phe Leu Gly Lys Leu Asp Phe Asp Arg Leu Ser His His Leu
 210 215 220

Tyr His Gly Ser Met Met Ala Ser Pro Ser Ser Thr Ala Ala Tyr Leu
 225 230 235 240

Ile Gly Ala Thr Lys Trp Asp Asp Glu Ala Glu Asp Tyr Leu Arg His
 245 250 255

Val Met Arg Asn Gly Ala Gly His Gly Asn Gly Gly Ile Ser Gly Thr
 260 265 270

Phe Pro Thr Thr His Phe Glu Cys Ser Trp Ile Ile Ala Thr Leu Leu
 275 280 285

Lys Val Gly Phe Thr Leu Lys Gln Ile Asp Gly Asp Gly Leu Arg Gly
 290 295 300

Leu Ser Thr Ile Leu Leu Glu Ala Leu Arg Asp Glu Asn Gly Val Ile
 305 310 315 320

Gly Phe Ala Pro Arg Thr Ala Asp Val Asp Asp Thr Ala Lys Ala Leu
 325 330 335

Leu Ala Leu Ser Leu Val Asn Gln Pro Val Ser Pro Asp Ile Met Ile
 340 345 350

Lys Val Phe Glu Gly Lys Asp His Phe Thr Thr Phe Gly Ser Glu Arg
 355 360 365
 Asp Pro Ser Leu Thr Ser Asn Leu His Val Leu Leu Ser Leu Leu Lys
 370 375 380
 Gln Ser Asn Leu Ser Gln Tyr His Pro Gln Ile Leu Lys Thr Thr Leu
 385 390 395 400
 Phe Thr Cys Arg Trp Trp Trp Gly Ser Asp His Cys Val Lys Asp Lys
 405 410 415
 Trp Asn Leu Ser His Leu Tyr Pro Thr Met Leu Leu Val Glu Ala Phe
 420 425 430
 Thr Glu Val Leu His Leu Ile Asp Gly Gly Glu Leu Ser Ser Leu Phe
 435 440 445
 Asp Glu Ser Phe Lys Cys Lys Ile Gly Leu Ser Ile Phe Gln Ala Val
 450 455 460
 Leu Arg Ile Ile Leu Thr Gln Asp Asn Asp Gly Ser Trp Arg Gly Tyr
 465 470 475 480
 Arg Glu Gln Thr Cys Tyr Ala Ile Leu Ala Leu Val Gln Ala Arg His
 485 490 495
 Val Cys Phe Phe Thr His Met Val Asp Arg Leu Gln Ser Cys Val Asp
 500 505 510
 Arg Gly Phe Ser Trp Leu Lys Ser Cys Ser Phe His Ser Gln Asp Leu
 515 520 525
 Thr Trp Thr Ser Lys Thr Ala Tyr Glu Val Gly Phe Val Ala Glu Ala
 530 535 540
 Tyr Lys Leu Ala Ala Leu Gln Ser Ala Ser Leu Glu Val Pro Ala Ala
 545 550 555 560
 Thr Ile Gly His Ser Val Thr Ser Ala Val Pro Ser Ser Asp Leu Glu
 565 570 575
 Lys Tyr Met Arg Leu Val Arg Lys Thr Ala Leu Phe Ser Pro Leu Asp
 580 585 590

Glu Trp Gly Leu Met Ala Ser Ile Ile Glu Ser Ser Phe Phe Val Pro
 595 600 605
 Leu Leu Gln Ala Gln Arg Val Glu Ile Tyr Pro Arg Asp Asn Ile Lys
 610 615 620
 Val Asp Glu Asp Lys Tyr Leu Ser Ile Ile Pro Phe Thr Trp Val Gly
 625 630 635 640
 Cys Asn Asn Arg Ser Arg Thr Phe Ala Ser Asn Arg Trp Leu Tyr Asp
 645 650 655
 Met Met Tyr Leu Ser Leu Leu Gly Tyr Gln Thr Asp Glu Tyr Met Glu
 660 665 670
 Ala Val Ala Gly Pro Val Phe Gly Asp Val Ser Leu Leu His Gln Thr
 675 680 685
 Ile Asp Lys Val Ile Asp Asn Thr Met Gly Asn Leu Ala Arg Ala Asn
 690 695 700
 Gly Thr Val His Ser Gly Asn Gly His Gln His Glu Ser Pro Asn Ile
 705 710 715 720
 Gly Gln Val Glu Asp Thr Leu Thr Arg Phe Thr Asn Ser Val Leu Asn
 725 730 735
 His Lys Asp Val Leu Asn Ser Ser Ser Ser Asp Gln Asp Thr Leu Arg
 740 745 750
 Arg Glu Phe Arg Thr Phe Met His Ala His Ile Thr Gln Ile Glu Asp
 755 760 765
 Asn Ser Arg Phe Ser Lys Gln Ala Ser Ser Asp Ala Phe Ser Ser Pro
 770 775 780
 Glu Gln Ser Tyr Phe Gln Trp Val Asn Ser Thr Gly Gly Ser His Val
 785 790 795 800
 Ala Cys Ala Tyr Ser Phe Ala Phe Ser Asn Cys Leu Met Ser Ala Asn
 805 810 815
 Leu Leu Gln Gly Lys Asp Ala Phe Pro Ser Gly Thr Gln Lys Tyr Leu
 820 825 830
 Ile Ser Ser Val Met Arg His Ala Thr Asn Met Cys Arg Met Tyr Asn

835		840		845
Asp Phe Gly Ser Ile Ala Arg Asp Asn Ala Glu Arg Asn Val Asn Ser				
850		855		860
Ile His Phe Pro Glu Phe Thr Leu Cys Asn Gly Thr Ser Gln Asn Leu				
865		870		880
Asp Glu Arg Lys Glu Arg Leu Leu Lys Ile Ala Thr Tyr Glu Gln Gly				
	885		890	895
Tyr Leu Asp Arg Ala Leu Glu Ala Leu Glu Arg Gln Ser Arg Asp Asp				
	900		905	910
Ala Gly Asp Arg Ala Gly Ser Lys Asp Met Arg Lys Leu Lys Ile Val				
	915		920	925
Lys Leu Phe Cys Asp Val Thr Asp Leu Tyr Asp Gln Leu Tyr Val Ile				
	930		935	940
Lys Asp Leu Ser Ser Ser Met Lys				
945		950		
<210> 392				
<211> 458				
<212> PRT				
<213> Zea mays				
<400> 392				
Gly Tyr Asn Val Ser Ser Asp Glu Leu Tyr His Val Val Glu Ala Ser				
1	5		10	15
Gly Leu His Asn Ser Leu Gly Gly Tyr Leu Asn Asp Thr Arg Thr Leu				
	20		25	30
Leu Glu Leu His Lys Ala Ser Thr Val Ser Ile Ser Glu Asp Glu Ser				
	35		40	45
Ile Leu Asp Ser Ile Gly Ser Arg Ser Arg Thr Leu Leu Arg Glu Gln				
	50		55	60
Leu Glu Ser Gly Gly Ala Leu Arg Lys Pro Ser Leu Phe Lys Glu Val				
65		70	75	80
Glu His Ala Leu Asp Gly Pro Phe Tyr Thr Thr Leu Asp Arg Leu His				
	85		90	95

His Arg Trp Asn Ile Glu Asn Phe Asn Ile Ile Glu Gln His Met Leu
100 105 110

Glu Thr Pro Tyr Leu Ser Asn Gln His Thr Ser Arg Asp Ile Leu Ala
115 120 125

Leu Ser Ile Arg Asp Phe Ser Ser Ser Gln Phe Thr Tyr Gln Gln Glu
130 135 140

Leu Gln His Leu Glu Ser Trp Val Lys Glu Cys Arg Leu Asp Gln Leu
145 150 155 160

Gln Phe Ala Arg Gln Lys Leu Ala Tyr Phe Tyr Leu Ser Ala Ala Gly
165 170 175

Thr Met Phe Ser Pro Glu Leu Ser Asp Ala Arg Thr Leu Trp Ala Lys
180 185 190

Asn Gly Val Leu Thr Thr Ile Val Asp Asp Phe Phe Asp Val Ala Gly
195 200 205

Ser Lys Glu Glu Leu Glu Asn Leu Val Met Leu Val Glu Met Trp Asp
210 215 220

Glu His His Lys Val Glu Phe Tyr Ser Glu Gln Val Glu Ile Ile Phe
225 230 235 240

Ser Ser Ile Tyr Asp Ser Val Asn Gln Leu Gly Glu Lys Ala Ser Leu
245 250 255

Val Gln Asp Arg Ser Ile Thr Lys His Leu Val Glu Ile Trp Leu Asp
260 265 270

Leu Leu Lys Ser Met Met Thr Glu Val Glu Trp Arg Leu Ser Lys Tyr
275 280 285

Val Pro Thr Glu Lys Glu Tyr Met Ile Asn Ala Ser Leu Thr Phe Gly
290 295 300

Leu Gly Pro Ile Val Leu Pro Ala Leu Tyr Phe Val Gly Pro Lys Ile
305 310 315 320

Ser Glu Ser Ile Val Lys Asp Pro Glu Tyr Asp Glu Leu Phe Lys Leu
325 330 335

Met Ser Thr Cys Gly Arg Leu Leu Asn Asp Val Gln Thr Phe Glu Arg
340 345 350

Glu Tyr Asn Glu Gly Lys Leu Asn Ser Val Ser Leu Leu Val Leu His
355 360 365

Gly Gly Ser Met Ser Ile Ser Asp Ala Lys Arg Lys Leu Gln Lys Pro
370 375 380

Ile Asp Thr Cys Arg Arg Asp Leu Leu Ser Leu Val Leu Arg Glu Glu
385 390 395 400

Ser Val Val Pro Arg Pro Cys Lys Glu Leu Phe Trp Lys Met Cys Lys
405 410 415

Val Cys Tyr Phe Phe Tyr Ser Thr Thr Asp Gly Phe Ser Ser Gln Val
420 425 430

Glu Arg Ala Lys Glu Val Asp Ala Val Ile Asn Glu Pro Leu Lys Leu
435 440 445

Gln Gly Ser His Thr Leu Val Ser Asp Val
450 455

<210> 393

<211> 85

<212> PRT

<213> Mycobacterium tuberculosis

<400> 393

Met Thr Val Arg Ala Val Leu Arg Arg Thr Val Gly Ala Gln Trp Pro
1 5 10 15

Ile Leu Ala Gly Val Asn Phe Trp Arg Arg Gly Ala Leu Leu Ile Gly
20 25 30

Ile Gly Val Gly Val Ala Ala Val Leu Arg Leu Val Leu Ser Glu Glu
35 40 45

Arg Ala Gly Leu Leu Val Val Arg Ser Lys Gly Ile Asp Phe Val Thr
50 55 60

Thr Val Thr Val Ala Ala Ala Met Val Tyr Ile Ala Ser Thr Ile Asp
65 70 75 80

Pro Leu Gly Thr Gly
85

<210> 394
 <211> 801
 <212> PRT
 <213> Pisum sativum

<400> 394

Met Phe Thr His Phe Ser Thr His Phe His Leu Pro Ser Ser Ser Ser
 1 5 10 15

Leu Phe Phe Leu His Pro Phe Tyr Lys Ser Ser Ser Leu Gly Ala Val
 20 25 30

Ser Phe Val Ala Lys Asp Lys Glu Lys Arg Cys Arg Ala Ile Ser Lys
 35 40 45

Ser Arg Thr Gln Glu Tyr Glu Gly Val Phe Gln Thr Asn Val Ala Thr
 50 55 60

Leu Lys Leu Ser Glu Ile Asn Val Glu Asp Val Ile Val Ile Asp Asp
 65 70 75 80

Glu Glu Glu Gln Asp Ile Arg Val Gly Leu Val Asn Lys Ile Lys Ser
 85 90 95

Ile Leu Ser Ser Leu Glu Asp Gly Glu Ile Thr Ile Ser Ala Tyr Asp
 100 105 110

Thr Ala Trp Val Ala Leu Val Glu Asp Val Asn Ala Ile Ser Thr Pro
 115 120 125

Gln Phe Pro Ser Ser Leu Glu Trp Ile Ala Lys Asn Gln Leu Gln Asp
 130 135 140

Gly Ser Trp Gly Asp Ser Arg Leu Phe Ser Ala His Asp Arg Ile Ile
 145 150 155 160

Asn Thr Leu Ala Cys Val Ile Ala Leu Arg Ser Trp Asn Met His Ser
 165 170 175

Glu Lys Cys Asp Lys Gly Met Ile Phe Phe Arg Glu Asn Leu Ser Lys
 180 185 190

Leu Glu Asn Glu Asn Glu Glu His Met Pro Ile Gly Phe Glu Val Ala
 195 200 205

Phe Pro Ser Leu Leu Glu Gly Ala Arg Gly Ile Lys Pro Leu Met Cys
210 215 220
Pro Asn Asp Ser Pro Ile Leu Lys Asn Ile Phe Glu Lys Arg Asp Glu
225 230 235 240
Lys Leu Thr Arg Ile Pro Lys Glu Ile Met His Lys Val Pro Thr Thr
245 250 255
Leu Leu His Ser Leu Glu Gly Met Ser Gly Leu Asp Trp Lys Gln Leu
260 265 270
Leu Lys Leu Gln Ser Gln Asp Gly Ser Phe Leu Phe Ser Pro Ser Ser
275 280 285
Thr Ala Phe Ala Leu Met Gln Thr Lys Asp Gly Asn Cys Leu Lys Tyr
290 295 300
Leu Asn Asn Val Val Lys Lys Phe Asn Gly Gly Val Pro Asn Val Tyr
305 310 315 320
Pro Val Asp Leu Phe Glu His Ile Trp Val Val Asp Arg Leu Glu Arg
325 330 335
Leu Gly Ile Ser Arg Phe Phe Arg His Glu Ile Lys Asp Cys Met Asn
340 345 350
Tyr Val Ser Lys Ile Trp Ser Glu Lys Gly Ile Cys Trp Ala Arg Asn
355 360 365
Ser Asn Val Gln Asp Ile Asp Asp Thr Ala Met Ala Phe Arg Leu Leu
370 375 380
Arg Leu His Gly His Gln Val Ser Ala His Val Phe Lys His Phe Glu
385 390 395 400
Arg Asn Gly Glu Phe Phe Cys Phe Ala Gly Gln Cys Thr Gln Ala Val
405 410 415
Thr Gly Met Tyr Asn Leu Phe Arg Ala Ser Gln Val Leu Phe Pro Gly
420 425 430
Glu Lys Ile Leu Glu His Ala Lys His Phe Ser Ala Lys Val Leu Lys
435 440 445
Glu Lys Arg Glu Ala Asn Glu Leu Ile Asp Lys Trp Ile Ile Met Lys

450	455	460															
Asn	Leu	Pro	Glu	Glu	Val	Gly	Tyr	Ala	Leu	Asp	Met	Pro	Trp	Tyr	Ala		
465					470					475					480		
Asn	Leu	Asp	Arg	Ile	Glu	Thr	Arg	Phe	Tyr	Ile	Asp	Gln	Tyr	Gly	Ala		
				485					490					495			
Glu	Ser	Asp	Val	Trp	Ile	Gly	Lys	Thr	Leu	Tyr	Arg	Met	Ala	Tyr	Val		
			500					505					510				
Asn	Asn	Asn	Asn	Tyr	Leu	Glu	Leu	Ala	Lys	Leu	Asp	Tyr	Asn	Asn	Cys		
			515				520					525					
Gln	Ala	Gln	His	Leu	Ile	Glu	Trp	Asn	Val	Ile	Gln	Thr	Trp	Tyr	Leu		
	530					535					540						
Glu	Ser	Arg	Leu	Gly	Glu	Phe	Gly	Leu	Ser	Lys	Arg	Asp	Leu	Leu	Leu		
545					550					555					560		
Ala	Tyr	Phe	Leu	Ala	Thr	Gly	Ser	Ile	Phe	Glu	Pro	Glu	Arg	Ser	His		
			565						570					575			
Glu	Arg	Leu	Ala	Trp	Ala	Lys	Thr	Thr	Ala	Leu	Leu	Glu	Thr	Ile	Lys		
		580						585					590				
Cys	Tyr	Val	Arg	Asn	Glu	Asp	Leu	Arg	Lys	Asp	Phe	Ala	Lys	Lys	Phe		
		595					600					605					
Asn	Asp	His	Ile	Asp	Val	Arg	Asp	Tyr	Ser	Ile	Ala	Arg	Arg	Met	Lys		
	610					615					620						
Arg	Asn	Lys	Thr	Glu	His	Glu	Leu	Val	Glu	Ser	Leu	Phe	Ala	Thr	Ile		
625					630					635					640		
Gly	Glu	Ile	Ser	Trp	Asp	Val	Arg	Leu	Ser	Tyr	Gly	His	Glu	Ile	Gly		
				645					650					655			
Tyr	Asp	Met	His	Gln	Cys	Trp	Lys	Lys	Trp	Leu	Ser	Ser	Trp	Gln	Ser		
			660					665						670			
Glu	Gly	Asp	Lys	Cys	Glu	Gly	Glu	Ala	Glu	Leu	Leu	Ile	Gln	Ile	Ile		
		675					680					685					
Asn	Leu	Cys	Ser	Asn	His	Trp	Ile	Ser	Glu	Gly	Pro	Ser	Met	Gln	Ser		
	690					695					700						

Thr Ile Gln His Leu Leu Gln Leu Thr Asn Ser Ile Cys His Lys Leu
705 710 715 720

Ser Cys Tyr Gln Lys Asp Lys Glu Leu Lys Gly Ile Ser Cys Gln Glu
725 730 735

Asn Ile Thr Asn Ser Glu Val Glu Ser Lys Met Gln Glu Leu Val Gln
740 745 750

Met Val Phe Gln Lys Cys Pro Asn Asp Ile Asp Phe Asn Val Lys Asn
755 760 765

Thr Phe Phe Thr Ile Ala Lys Ser Phe Tyr Tyr Ala Ala Phe Cys Asp
770 775 780

Ser Arg Thr Ile Asn Phe His Ile Ala Lys Val Leu Phe Glu Lys Val
785 790 795 800

Val

<210> 395
<211> 789
<212> PRT
<213> Cucurbita maxima

<400> 395

Met Tyr Leu Ser Arg Pro Thr Gly Val Ala Arg Phe Ala Ala Ser Ser
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Ser Ser Ser Ser Ser Ala Ser Leu Phe Pro Gly Val Asp Val Asp Thr
20 25 30

Thr Thr Lys Thr Gly Ala Leu His Phe Glu Glu Thr Lys Glu Arg Ile
35 40 45

Lys Lys Leu Phe Asp Lys Val Glu Leu Ser Val Ser Ala Tyr Asp Thr
50 55 60

Ala Trp Val Ala Met Val Pro Ser Pro Asn Ser Leu Asn Gln Pro Leu
65 70 75 80

Phe Pro Glu Cys Ile Asn Trp Val Leu Asp Ser Gln His Ala Asp Gly
85 90 95

Ser Trp Gly Leu Leu His Asn Asp Gln Leu Leu Met Lys Ala Asn Leu
 100 105 110

Leu Ser Thr Leu Ala Cys Val Leu Thr Leu Lys Arg Trp Asn Ile Gly
 115 120 125

His Asp His Met Ser Lys Ala Leu Asp Phe Ile Lys Ser Asn Ile Ala
 130 135 140

Ser Ala Thr Asp Glu Asn Gln Arg Ser Pro Val Gly Phe Asp Ile Ile
 145 150 155 160

Phe Pro Gly Met Ile Glu Tyr Ala Lys Asp Leu Asn Leu Asn Leu Pro
 165 170 175

Leu Ala Pro Thr Asn Val Asp Ala Leu Val Arg Lys Lys Glu Leu Glu
 180 185 190

Leu Arg Ser Cys Arg Ser Asn Ser Glu Gly Gly Lys Ala Tyr Leu Ala
 195 200 205

Tyr Val Ser Glu Gly Ile Gly Lys Leu Gln Asp Trp Asp Met Val Met
 210 215 220

Gln Tyr Gln Arg Lys Asn Gly Ser Leu Phe Asn Ser Pro Ser Thr Thr
 225 230 235 240

Ala Ala Ala Phe Met His Arg Asn Asp Asp Gly Cys Phe Asp Tyr Leu
 245 250 255

Arg Ser Leu Leu Gln Lys Phe Asp Gly Ser Val Pro Thr Ile Tyr Pro
 260 265 270

Leu Asp Ile Tyr Ala Arg Leu His Met Val Asp Ser Leu Gln Lys Phe
 275 280 285

Gly Ile Ala Arg His Phe Lys Glu Glu Ile Arg Ser Val Leu Asp Glu
 290 295 300

Thr Tyr Arg Cys Trp Met Gln Gly Glu Glu Asn Ile Phe Leu Asp Ala
 305 310 315 320

Ser Thr Cys Ala Met Ala Phe Arg Met Leu Arg Val Glu Gly Tyr Asp
 325 330 335

Val Ser Ser Asp Gln Leu Thr Gln Phe Ser Glu Asp Ile Phe Pro Asn

340	345	350
Cys Leu Gly Gly Tyr Leu Lys Asp Phe Gly Ala Ser Leu Glu Leu Tyr		
355	360	365
Lys Ala Ser Gln Ile Ile Thr His Pro Asp Glu Ser Val Leu Glu Asn		
370	375	380
Ile Asn Ser Trp Thr Ser Arg Phe Leu Lys His Gly Leu Ser Ser Asp		
385	390	395
Ser Val Trp Ser Asp Arg Thr Asp Ser Val Val Lys Gln Glu Ala Val		
	405	410
Asn Ala Leu Glu Phe Pro Tyr Asn Ala Thr Leu Glu Arg Leu Ile Ser		
	420	425
Lys Arg Ala Met Glu Ser Tyr Ser Gly Asp Ile Val Arg Ile Ser Lys		
	435	440
Ser Pro Tyr Ala Cys Leu Asn Phe Gly His Gln Asp Phe Leu Glu Leu		
	450	455
Ala Val Glu Asp Phe Asn Thr Leu Gln Arg Ile His Leu Lys Glu Leu		
	465	470
Glu Glu Leu Gln Arg Trp Val Val Glu Asn Lys Leu Asp Glu Leu Lys		
	485	490
Phe Phe Arg Leu His Leu Gly Tyr Cys Tyr Phe Ala Ala Ala Ala Thr		
	500	505
Leu Thr Asp Pro Glu Leu His Asp Ala Arg Ile Ala Trp Ala Gln Asn		
	515	520
Gly Val Leu Thr Thr Val Val Asp Asp Phe Tyr Asp Gly Gly Gly Ser		
	530	535
Glu Glu Glu Leu Asp Asn Leu Ile Glu Leu Val Glu Lys Trp Asp Pro		
	545	550
Asp Gly Glu Val Gly Tyr Cys Ser Lys Asp Val Glu Ile Val Phe Leu		
	565	570
Ala Leu His Ser Thr Val Cys Glu Ile Gly Arg Arg Ala Leu Val Trp		
	580	585
		590

Gln Gly Arg Ser Val Met Arg Asn Val Ile Asp Gly Trp Leu Ala Leu
595 600 605

Leu Lys Val Met Arg Lys Glu Ala Glu Trp Ser Thr Asn Lys Val Val
610 615 620

Pro Ser Met Gly Glu Tyr Met Glu Gln Ala His Val Ser Phe Ala Leu
625 630 635 640

Gly Pro Ile Ile Leu Pro Met Leu Phe Phe Val Gly Pro Lys Leu Ser
645 650 655

Glu Glu Met Ile Gly Ser Cys Glu Tyr Gln Lys Leu Tyr Lys Leu Met
660 665 670

Ser Thr Ala Gly Arg Leu Lys Asn Asp Ile Arg Ser Tyr Asp Arg Glu
675 680 685

Cys Lys Glu Gly Lys Leu Asn Ile Leu Ser Leu Trp Met Ile Asp Gly
690 695 700

Gly Gly Asn Val Thr Lys Glu Glu Ala Ile Glu Ala Ile Lys Gly Asp
705 710 715 720

Phe Glu Arg Ala Ile Arg Glu Leu Leu Gly Leu Val Leu Gln Glu Asn
725 730 735

Thr Thr Ile Pro Arg Ala Cys Lys Asp Leu Phe Trp Lys Leu Met Ser
740 745 750

Ile Val Asn Leu Phe Tyr Met Glu Asp Asp Gly Tyr Thr Ser Asn Arg
755 760 765

Leu Met Asn Thr Val Lys Ala Met Phe Glu Gln Pro Met Asp Leu Asp
770 775 780

Ala Leu Leu Asn Lys
785

<210> 396

<211> 823

<212> PRT

<213> Zea mays

<400> 396

Met Pro Tyr Pro His Pro Tyr Pro Trp Gln Ser Ser Arg Arg Arg Arg
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 Arg Arg Arg Gly Arg Asp Gly Ala Pro Arg Gln Pro Gln Ala Arg Arg
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 Val Val Glu Arg Ala Ala Ala Gly Pro Gly His Ala Thr Thr Thr Gln
 35 40 45
 Gln Pro Asp Asn Val Ser Ser Ala Lys Val Phe Gln Thr Ser Arg Val
 50 55 60
 Glu Thr Glu Ser Lys Leu Arg Asn Gly Arg Lys Pro Gln Asp Leu Glu
 65 70 75 80
 Asp Glu His Gln Ala Glu Glu Ala Glu Leu Gln Pro Leu Ile Asp Gln
 85 90 95
 Val Arg Ala Met Leu Arg Ser Met Asn Asp Gly Asp Thr Ser Ala Ser
 100 105 110
 Ala Tyr Asp Thr Ala Trp Val Ala Met Val Pro Lys Val Gly Gly Asp
 115 120 125
 Gly Gly Ala Gln Pro Gln Phe Pro Ala Thr Val Arg Trp Ile Val Asp
 130 135 140
 His Gln Leu Pro Asp Gly Ser Trp Gly Asp Ser Ala Leu Phe Ser Ala
 145 150 155 160
 Tyr Asp Arg Met Ile Asn Thr Leu Ala Cys Val Val Ala Leu Thr Lys
 165 170 175
 Trp Ser Leu Glu Pro Ala Arg Cys Glu Ala Gly Leu Ser Phe Leu His
 180 185 190
 Glu Asn Met Trp Arg Leu Ala Glu Glu Glu Ala Glu Ser Met Pro Ile
 195 200 205
 Gly Phe Glu Ile Ala Phe Pro Ser Leu Ile Gln Thr Ala Arg Asp Leu
 210 215 220
 Gly Val Val Asp Phe Pro Tyr Gly His Pro Ala Leu Gln Ser Ile Tyr
 225 230 235 240
 Ala Asn Arg Glu Val Lys Leu Lys Arg Ile Pro Arg Asp Met Met His

Asp Gln Tyr Gly Gly Lys Asp Asp Val Trp Ile Gly Lys Thr Leu Tyr
 500 505 510

Arg Met Pro Leu Val Asn Asn Asp Thr Tyr Leu Glu Leu Ala Ile Arg
 515 520 525

Asp Phe Asn His Cys Gln Ala Leu His Gln Leu Glu Cys Asn Gly Leu
 530 535 540

Gln Thr Trp Tyr Lys Asp Asn Cys Leu Asp Ala Phe Gly Val Glu Pro
 545 550 555 560

Gln Asp Val Leu Arg Ser Tyr Phe Leu Ala Ala Ala Cys Ile Phe Glu
 565 570 575

Pro Ser Arg Ala Ala Glu Arg Leu Ala Trp Ala Arg Thr Ser Met Ile
 580 585 590

Ala Asn Ala Ile Ser Thr His Leu Arg Asp Ile Ser Glu Asp Lys Lys
 595 600 605

Arg Leu Glu Cys Phe Val His Cys Leu Tyr Glu Glu Asn Asp Val Ser
 610 615 620

Trp Leu Lys Arg Asn Pro Asn Asp Val Ile Leu Glu Arg Ala Leu Arg
 625 630 635 640

Arg Leu Ile Asn Leu Leu Ala Gln Glu Ala Leu Pro Ile His Glu Gly
 645 650 655

Gln Arg Phe Ile His Ser Leu Leu Ser Leu Ala Trp Thr Glu Trp Met
 660 665 670

Leu Gln Lys Ala Asn Lys Glu Glu Asn Lys Tyr His Lys Cys Ser Gly
 675 680 685

Ile Glu Pro Gln Tyr Met Val His Asp Arg Gln Thr Tyr Leu Leu Leu
 690 695 700

Val Gln Val Ile Glu Ile Cys Ala Gly Arg Ile Gly Glu Ala Val Ser
 705 710 715 720

Met Ile Asn Asn Lys Asp Asn Asp Trp Phe Ile Gln Leu Thr Cys Ala
 725 730 735

Thr Cys Asp Ser Leu Asn His Arg Met Leu Leu Ser Gln Asp Thr Met
740 745 750

Lys Asn Glu Ala Arg Ile Asn Trp Ile Glu Lys Glu Ile Glu Leu Asn
755 760 765

Met Gln Glu Leu Ala Gln Ser Leu Leu Leu Arg Cys Asp Glu Lys Thr
770 775 780

Ser Asn Lys Lys Thr Lys Lys Thr Leu Trp Asp Val Leu Arg Ser Leu
785 790 795 800

Tyr Tyr Ala Thr His Ser Pro Gln His Met Ile Asp Arg His Val Ser
805 810 815

Arg Val Ile Phe Glu Pro Val
820

<210> 397
<211> 2705
<212> DNA
<213> Ginkgo biloba

<400> 397
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aaaaa						2705

<210> 398
 <211> 873
 <212> PRT
 <213> Ginkgo biloba

<400> 398

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Pro Lys Val Pro Phe Arg Gln Ser Thr Asn Ile Leu Ile Pro Phe His
 20 25 30

Lys Arg Ser Ser Phe Gly Phe Asn Ala Gln His Cys Val Arg Ser His
 35 40 45

Leu Arg Leu Arg Trp Asn Cys Val Gly Ile His Ala Ser Ala Ala Glu
 50 55 60

Thr Arg Pro Asp Gln Leu Pro Gln Glu Glu Arg Phe Val Ser Arg Leu
 65 70 75 80

Asn Ala Asp Tyr His Pro Ala Val Trp Lys Asp Asp Phe Ile Asp Ser
 85 90 95

Leu Thr Ser Pro Asn Ser His Ala Thr Ser Lys Ser Ser Val Asp Glu
 100 105 110

Thr Ile Asn Lys Arg Ile Gln Thr Leu Val Lys Glu Ile Gln Cys Met
 115 120 125

Phe Gln Ser Met Gly Asp Gly Glu Thr Asn Pro Ser Ala Tyr Asp Thr
 130 135 140

Ala Trp Val Ala Arg Ile Pro Ser Ile Asp Gly Ser Gly Ala Pro Gln
 145 150 155 160

Phe Pro Gln Thr Leu Gln Trp Ile Leu Asn Asn Gln Leu Pro Asp Gly
 165 170 175

Ser Trp Gly Glu Glu Cys Ile Phe Leu Ala Tyr Asp Arg Val Leu Asn
 180 185 190

Thr Leu Ala Cys Leu Leu Thr Leu Lys Ile Trp Asn Lys Gly Asp Ile
 195 200 205

Gln Val Gln Lys Gly Val Glu Phe Val Arg Lys His Met Glu Glu Met
 210 215 220

Lys Asp Glu Ala Asp Asn His Arg Pro Ser Gly Phe Glu Val Val Phe
 225 230 235 240

Pro Ala Met Leu Asp Glu Ala Lys Ser Leu Gly Leu Asp Leu Pro Tyr
 245 250 255

His Leu Pro Phe Ile Ser Gln Ile His Gln Lys Arg Gln Lys Lys Leu
 260 265 270

Gln Lys Ile Pro Leu Asn Val Leu His Asn His Gln Thr Ala Leu Leu
 275 280 285

Tyr Ser Leu Glu Gly Leu Gln Asp Val Val Asp Trp Gln Glu Ile Thr
 290 295 300

Asn Leu Gln Ser Arg Asp Gly Ser Phe Leu Ser Ser Pro Ala Ser Thr
 305 310 315 320

Ala Cys Val Phe Met His Thr Gln Asn Lys Arg Cys Leu His Phe Leu
 325 330 335

Asn Phe Val Leu Ser Lys Phe Gly Asp Tyr Val Pro Cys His Tyr Pro
 340 345 350

Leu Asp Leu Phe Glu Arg Leu Trp Ala Val Asp Thr Val Glu Arg Leu
 355 360 365

Gly Ile Asp Arg Tyr Phe Lys Lys Glu Ile Lys Glu Ser Leu Asp Tyr
 370 375 380

Val Tyr Arg Tyr Trp Asp Ala Glu Arg Gly Val Gly Trp Ala Arg Cys
 385 390 395 400

Asn Pro Ile Pro Asp Val Asp Asp Thr Ala Met Gly Leu Arg Ile Leu
 405 410 415

Arg Leu His Gly Tyr Asn Val Ser Ser Asp Val Leu Glu Asn Phe Arg
 420 425 430

Asp Glu Lys Gly Asp Phe Phe Cys Phe Ala Gly Gln Thr Gln Ile Gly
 435 440 445

Val Thr Asp Asn Leu Asn Leu Tyr Arg Cys Ser Gln Val Cys Phe Pro

450	455	460
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Gln Asn Ala Leu Ala Lys Asn Asn Ala Phe Asp Lys Trp Ala Val Lys 485 490 495		
Lys Asp Leu Pro Gly Glu Val Glu Tyr Ala Ile Lys Tyr Pro Trp His 500 505 510		
Arg Ser Met Pro Arg Leu Glu Ala Arg Ser Tyr Ile Glu Gln Phe Gly 515 520 525		
Ser Asn Asp Val Trp Leu Gly Lys Thr Val Tyr Lys Met Leu Tyr Val 530 535 540		
Ser Asn Glu Lys Tyr Leu Glu Leu Ala Lys Leu Asp Phe Asn Met Val 545 550 555 560		
Gln Ala Leu His Gln Lys Glu Thr Gln His Ile Val Ser Trp Trp Arg 565 570 575		
Glu Ser Gly Phe Asn Asp Leu Thr Phe Thr Arg Gln Arg Pro Val Glu 580 585 590		
Met Tyr Phe Ser Val Ala Val Ser Met Phe Glu Pro Glu Phe Ala Ala 595 600 605		
Cys Arg Ile Ala Tyr Ala Lys Thr Ser Cys Leu Ala Val Ile Leu Asp 610 615 620		
Asp Leu Tyr Asp Thr His Gly Ser Leu Asp Asp Leu Lys Leu Phe Ser 625 630 635 640		
Glu Ala Val Arg Arg Trp Asp Ile Ser Val Leu Asp Ser Val Arg Asp 645 650 655		
Asn Gln Leu Lys Val Cys Phe Leu Gly Leu Tyr Asn Thr Val Asn Gly 660 665 670		
Phe Gly Lys Asp Gly Leu Lys Glu Gln Gly Arg Asp Val Leu Gly Tyr 675 680 685		
Leu Arg Lys Val Trp Glu Gly Leu Leu Ala Ser Tyr Thr Lys Glu Ala 690 695 700		

Glu Trp Ser Ala Ala Lys Tyr Val Pro Thr Phe Asn Glu Tyr Val Glu
705 710 715 720

Asn Ala Lys Val Ser Ile Ala Leu Ala Thr Val Val Leu Asn Ser Ile
725 730 735

Phe Phe Thr Gly Glu Leu Leu Pro Asp Tyr Ile Leu Gln Gln Val Asp
740 745 750

Leu Arg Ser Lys Phe Leu His Leu Val Ser Leu Thr Gly Arg Leu Ile
755 760 765

Asn Asp Thr Lys Thr Tyr Gln Ala Glu Arg Asn Arg Gly Glu Leu Val
770 775 780

Ser Ser Val Gln Cys Tyr Met Arg Glu Asn Pro Glu Cys Thr Glu Glu
785 790 795 800

Glu Ala Leu Ser His Val Tyr Gly Ile Ile Asp Asn Ala Leu Lys Glu
805 810 815

Leu Asn Trp Glu Leu Ala Asn Pro Ala Ser Asn Ala Pro Leu Cys Val
820 825 830

Arg Arg Leu Leu Phe Asn Thr Ala Arg Val Met Gln Leu Phe Tyr Met
835 840 845

Tyr Arg Asp Gly Phe Gly Ile Ser Asp Lys Glu Met Lys Asp His Val
850 855 860

Ser Arg Thr Leu Phe Asp Pro Val Ala
865 870

<210> 399

<211> 39827

<212> DNA

<213> *Saccharomyces cerevisiae*

<400> 399

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<210> 400

<211> 1578

<212> DNA

<213> *Saccharomyces cerevisiae*

<400> 400

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<211> 2452

<212> DNA

<213> *Saccharomyces cerevisiae*

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 <213> *Saccharomyces cerevisiae*

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<210> 406
<211> 2427
<212> DNA
<213> *Saccharomyces cerevisiae*

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<211> 2590

<212> DNA

<213> Stevia rebaudiana

<400> 412

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